The SPHERE

Vol. CXXIV. No. 1621 FEB. 14, 1931. THE EMPIRE'S ILLUSTRATED WEEKLY

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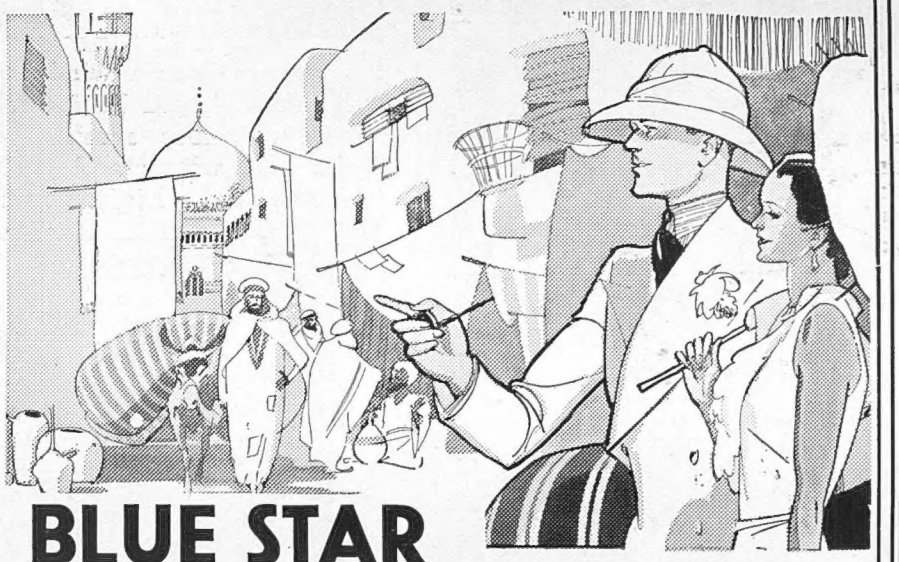

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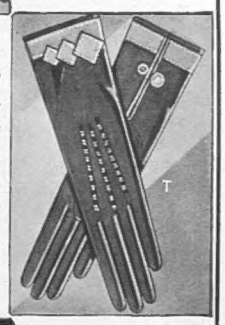

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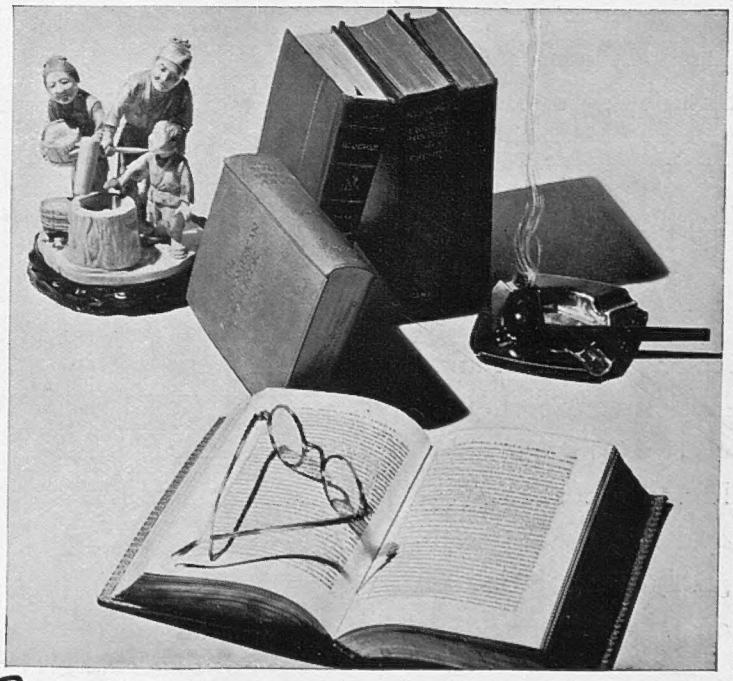

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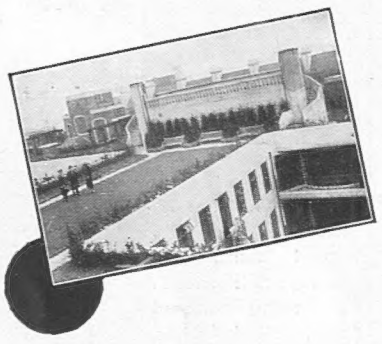

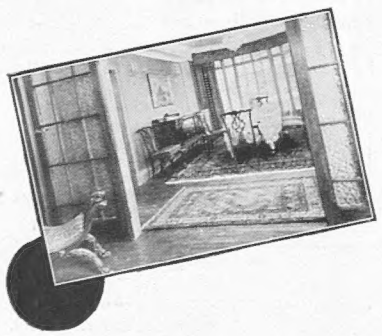

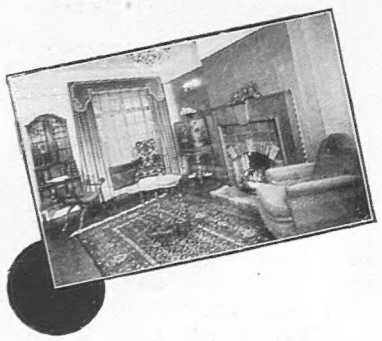

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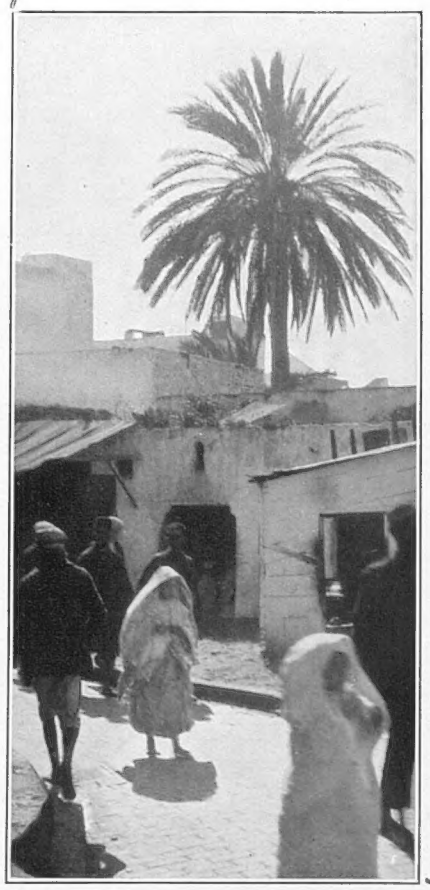

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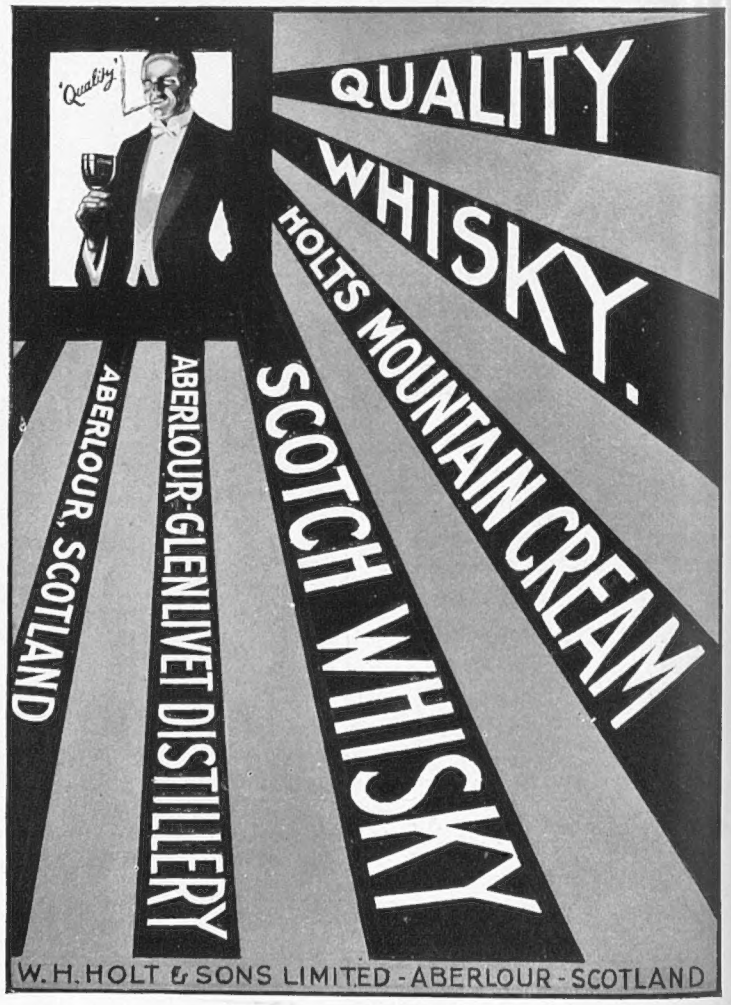

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THE SPHERE

The Empire's Illustrated Weekly

With which is incorporated BLACK & WHITE

Volume CXXIV. No. 1621 Price One Shilling. Postage { Inland, 1½d.; Canada and Newfoundland, 1½d.: Foreign, 2½d. } London, February 14, 1931

ADDING ACRES to the MAP of EUROPE

Wonder at the Reclaimed North-west "Polder"

The enormous scheme for the reclamation of land from the grip of the North Sea that is a matter of national import to Holland and a subject of enthralling interest to the World at large — so stupendous a feat of engineering cannot but excite admiration—proceeds apace. The great dyke from Wieringen to Friesland will, it is anticipated, be completed in the autumn, thus enclosing the vast expanse of the shallow Zuider Zee. The scheme of reclamation is concentrating upon the north-west *polder*—the expanse in the immediate neighbourhood of Wieringen—and Dutch children are seen above regarding with awe the land risen from the sea. Holland has spent so far no less than fifteen millions sterling upon this gigantic project.

A London Newsletter

INVERESK HOUSE, STRAND, W.C.,
Wednesday, February 11, 1931.

The Duty of a Decent Opposition. —I do not know the date in February on which the Government will ask Parliament to sanction another £10,000,000 loan for Dole purposes. As I stated last week the debt of the fund is now growing at the rate of £1,000,000 a week or just under. The Unemployment Insurance Fund is insolvent. The uses for which it was designed are being recklessly and grossly abused. These facts were given, not by casual witnesses, but by the two men in the Civil Service who know more about its workings than any others—one of the heads of the Treasury and the Government Actuary. It is not easy for a Treasury official to make a public outcry against the crimes of the Government, but these two highly responsible officials felt it vitally necessary to do so before the Royal Commission. Exchequer commitments in respect of the Dole Fund have brought the balancing of the next Budget to the point of impossibility. That means that Britain's credit—so hardly rebuilt—is threatened by the insane squandermania of the Socialists, and (it is now clear) this squandermania is the result of Mr. MacDonald's cowardly fear of his own party's hotheads who will not suffer any check to the orgy of spending. If, in the face of these facts, any section of the Opposition weakly stands aside and allows the evil to grow, it will prove itself as lacking in patriotism as in common sense. Such men are no more fit to represent us in Parliament than is the village idiot or the newest baby.

THE ARTISTIC ANARCH AND HIS LATEST BOMB: Mr. Jacob Epstein with *Genesis*, the latest product of his genius, with which the highbrows of the modern cult will belabour the incomprehension of the plain man. This statue, together with many works in bronze, some of which have a magnificent beauty allied to the great strength with which this sculptor invests all his work, is on view at the Leicester Galleries. One critic, on the subject of *Genesis*, suggests that from Mongolism Mr. Epstein has moved over to Negroism

His Last Word.—Mr. Lansbury has said his last word (if, indeed, a Minister of the Crown ever attains that blessed state) about the Haig Statue, and the hint is taken up by those journals who have got so much free copy from those amateurs of journalism who lose no chance of "writing to the papers about it." Hardy Mr. Hardiman shall accomplish the work, though he spend his whole life upon it. It has become a matter of national pride—do it he shall! He has tried a cart-horse, he has tried a quadruped trained to crawl through a gas pipe, he has offered extremes, and he has insinuated compromises. Still there are critics. Yet the system is not altogether bad. It has worked admirably with our free constitution, which is the embodiment of the will of the people, trickling in through the centuries. And it seems that our statues, like our statutes, "broaden down from precedent to precedent." At the moment of writing we still possess but two satisfactory equestrian statues, one is at Charing Cross (now decked with wreaths), and the other in Mells Church. And they happen to be poles apart in conception; the one symbolic, the other photographically faithful. Yet both are works of art. Soon we may have a third. I don't know if you have seen Mr. Epstein's "Genesis" which came on view, still further to confound us, at this apt moment. Mr. Epstein's symbolism of motherhood seems to give a handle to the claims of the poor ignorant "public" that, after all, photographic faithfulness to nature in sculpture often goes nearer to beauty and eternal truth than symbolism. In short, Mr. Epstein is not content to allow Mr. Einstein alone to disturb our placid waters with a new brick.

The Two Voices.—The Office of Works congratulates itself on a notable advance in humanity. It feels quite certain that the failure of the traffic in the London parks to secure a single victim for a whole week is due to the imposition of a rigorously enforced speed limit. I don't know if Mr. Lansbury sent this considered judgment across to his colleague at the Ministry of Transport "for information and action." If the imposition of a reasonable speed limit in London parks economizes in mortality among pedestrians, how strange a thing it is that the removal of all speed restrictions outside London should be expected to achieve the same happy economies! It is surely not possible that the Government regards the bones of a single Londoner as worth more than a dozen provincials. The law, it appears, does not take this view, for at the moment of writing a magistrate has expressed his opinion that the new traffic regulations of Mr. Morrison wash out Mr. Lansbury's speed limit in the London parks, and that no police summons for exceeding 20 m.p.h. should succeed. No doubt they'll fight it out in time.

N.Z. Earthquake.—The city of Napier lies or lay about 200 miles N.E. of Wellington on the east coast of the north island of New Zealand. This was a town of 20,000 inhabitants, and stood in the centre of the Hawke's Bay Area, the epicentre of the earthquake. The disturbance lasted far longer than is normal in major earthquakes, and by the time the worst was over hardly a substantial stone building remained intact. Most of the town is in ruins, and for a day after the disaster was blazing fiercely and unchecked, since the water supplies totally failed. At least 250 people were killed outright; in one boy's school fourteen children were killed and the majority injured. One hospital collapsed burying patients and nurses; the coastline was altered by landslides and erosions; the harbour bottom was lifted 10 yards up; an artificially created lake was emptied; all communications were smashed for 40 miles round, and the sewerage system was dangerously wrecked, so that a big scale evacuation of the inhabitants became necessary. Hastings, an important inland town of half the size of Napier, was totally wrecked also, and in these two towns alone the casualties amount to at least a thousand. As usual the Navy played a notable part in rescue work, and did all they could to alleviate the panic, despair, and misery of the afflicted. There has never been an earthquake in New Zealand to compare with this; indeed, that which occurred in June two years ago caused more loss of life (thirteen killed) than all the previously recorded earthquakes in New Zealand. The shock was severely felt in Wellington itself and in all the island. It was violently recorded on instruments in England.

Four Miles a Minute.—None who read the excellent account of Captain Malcolm Campbell's triumph over unnumbered difficulties when he made his great speed attempt at Verneuk Pan in South Africa in 1929, could doubt that, if spared, he would one day lower Sir Henry Segrave's Daytona record of 231·36 m.p.h., which he was then out to beat. He failed gloriously, to triumph two years later by a margin of 14 m.p.h. The "Golden Arrow," Segrave's car, was designed by Irving, having a 1,000 h.p. Napier engine, ice-cooled. The "Blue Bird" has also a Napier engine, an aero engine of the Schneider Trophy type, developing 1,400 h.p. Captain Campbell surprised the spectators by continuing the return mile without changing his tyres or otherwise using up the half-hour's interval which the conditions allow. Captain Campbell has been in this risky business prominently since 1925, and he has treated speed racing as the hobby of a man of means. He jumped out of the "Blue Bird," set spurs to his Baby Austin, and broke all records in her also, just to show how easy it all is. It must be some consolation to pessimistic Englishmen to realize that all the speed records on land and sea and in the air, are held to-day (and firmly held we may believe for a few years) by Britons. Our Schneider champion could fly from London to Hindhead (forty miles) in seven minutes; Campbell, if the road were other than it is, in the sober time of ten minutes. You and I, taking insane risks, do the journey in 100 minutes.

Some Person Unknown. — The Rouse trial will rank among the historic murders in the *Notable Trials Series*. It was "out of the way" in more ways than one. That the experts should have perforce to go back 150 years to find a parallel for a conviction for murder in respect of an unidentified corpse did, I confess, surprise me. But the "Unknown Sailor" of the Devil's Punch Bowl is a very old friend of mine, and first awakened my interest in crime when the *Huts* Hotel was the only building on Hindhead (where now is a thriving township stretching towards Farnham and towards Haslemere). Still I believe you may admire in the "Huts" those lurid illustrations of the murder which I first saw as a little boy on a bicycle tour in the early 'nineties, when searching for ginger-beer after accomplishing that terrific ascent from Guildford. And in Thursley Church the register is ever left open on the page which records the unknown's burial. Last year some reckless navvies risked the curse and moved back the famous stone which marks the scene of that strangely vital and utterly unimaginative crime, which I, for one, am condemned to pass about four times every week.

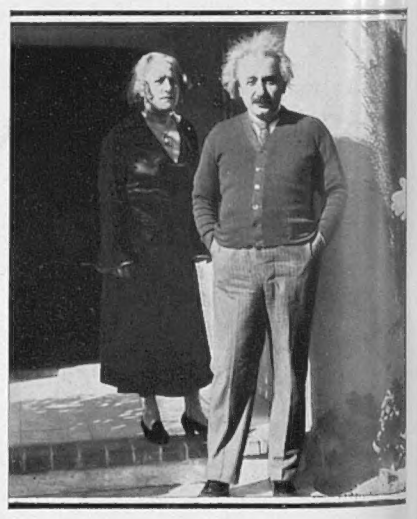
The Andrée Diaries.—No record of polar exploration fails to grip me (with the possible exception of Nobile's). I commend the *Andrée Diaries* to all who love to read of stark courage and unfailing cheerfulness and resource in the face of constant difficulty and danger. The book has an added thrill in the fact that it is a detective story as well as a tale of breathless adventure. It is open to every reader to make deductions and supply missing links from the obliterated MSS., and to help to build up the true story of that thirty-year-old saga which ended in death for all three explorers, when and how we know not yet. Two strange facts are proved and they are grim enough — Andrée's meticulous forethought and experiment in many aspects of the adventure were as complete as could be wished, but in the matter of meteorological research and clothing he was proved a very tyro. He never considered the fog conditions which he was likely to encounter, nor its effect on the buoyancy of his balloon, and he let his party start out with clothing which a St. Moritz ski-er would hardly consider adequate. Cotton shirts, and thin at that, were worn by the party into October.

Our Octogenarians. — More than thirty years ago Lord Methuen rose in the House of Lords to give his views on certain aspects of the regulations governing the O.T.C. On that account he felt impelled last week to rise again when the subject cropped up. This extraordinary vigour of mind and body in an octogenarian is by no means unique. F. M. Lord Methuen is eighty-six, but beyond his lameness has shown no deterioration of his powers in the last twenty years. He walks in processions in all weathers, he has relaxed none of his County activities which are legion. Yet he was a veteran in the South African War. Lord Darling is a mere child beside him—in years. He is but eighty-two, and it causes no surprise that he should speak and write on every subject under the sun and have a suitable copy of verses ready and red hot from his pen, to celebrate every famous current event in the press of "the morning after." Lord Parmoor (approaching his eightieth year) is, beside these, accepted as a man in the prime of life on whom the full duties of a Minister of the Crown should reasonably fall. We may assume that all these gentlemen intend to equal and surpass the vitality of Lord Halsbury, who was doing much public work at the age of ninety-four.

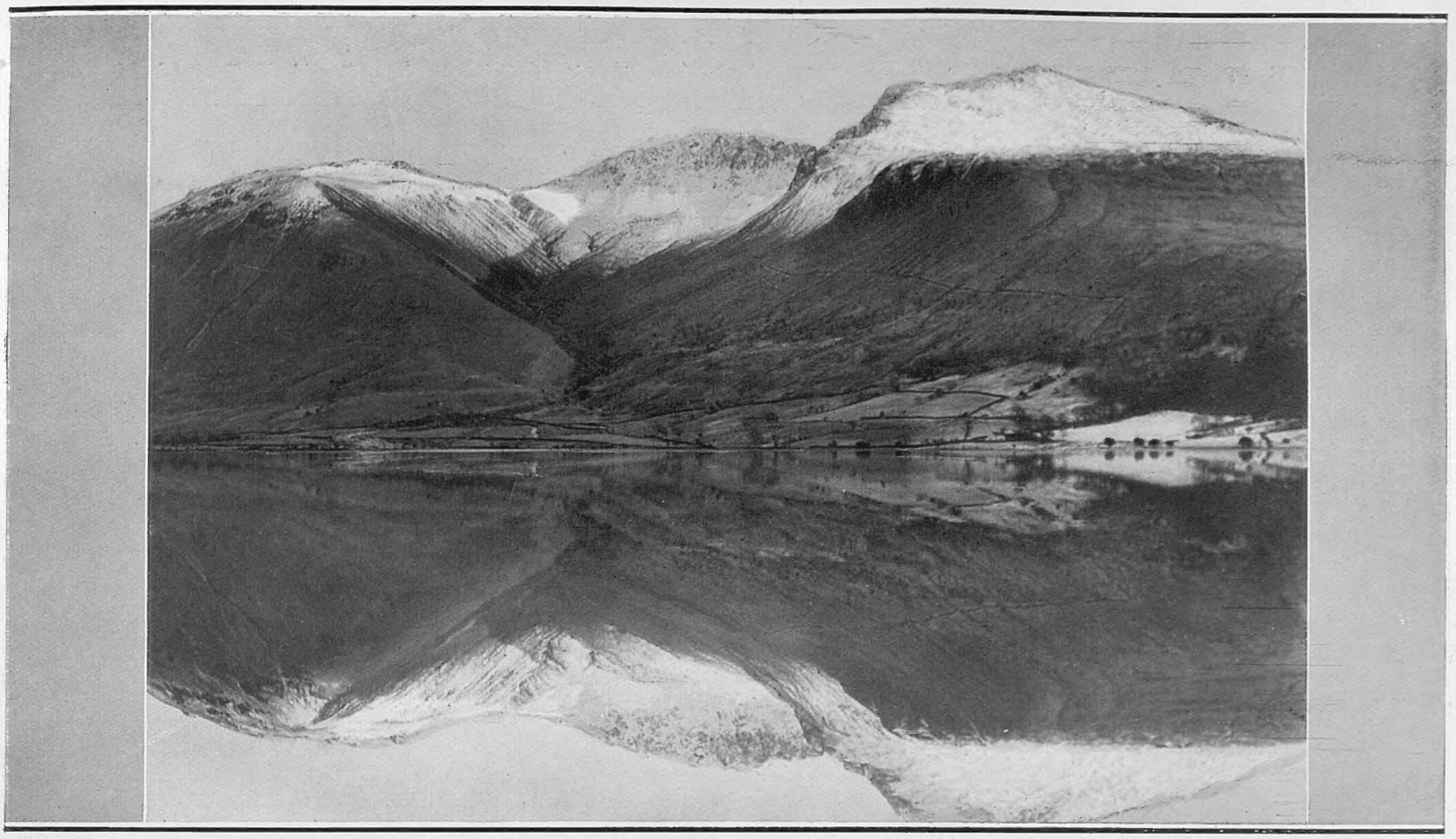
A New Evening Paper.—If the lying jade for once belies her name, London is to have removed one of her sharpest reproaches. The capital of the World for long has possessed a niggardly trio of evening newspapers, while many provincial cities have three or four. In the good old days of my youth, one could go home from work with four or five evening papers, to suit the passing moods, and could derive æsthetic pleasure and literary culture from two or three of them. Lord! how I have regretted the old *Pall Mall* in its heyday, *The Westminster Gazette* with its high standard of fairness and excellence so long maintained, even the old *Globe* . . . If rumour is right, the new evening venture is to belong to no party in politics, is backed by no one group of Press lords, is linked to no system of Daily and Sunday journals. How the wheels of its printing press are to be kept oiled, I don't profess to know. I thought that unless this juggernaut could be kept busy all day and all night the week through, it must bankrupt its masters inside two months. But we shall all be anxious to encourage a new venture in a field so jealously guarded. For we all admire pluck and are ripe for a reaction in journalism towards all that is non-sensational, non-partisan, and not too primitive and popular. Even established giants need an occasional shake-up and may benefit from a little mild competition.

Belgrave Square's Reaction. — One hundred years ago social existence on a high plane began for Belgrave Square. Early in the 1820's Mr. Cubitt, ancestor of the lord-lieutenant of Surrey, discovered beneath the damp clay of that desolate, rogue-infested area of swamp known as the "Five Fields," a valuable deposit of gravel. This open space, once the haunt of the notorious highwayman, Jerry Abershaw, stretched from the walls of Buckingham Palace to Sloane Square and contained no building at all save the chapel of the Lock Hospital and some shacks. Thieves and snipe haunted it till Mr. Cubitt scraped away the clay and turned it into bricks and built Belgrave and Eaton Squares on the gravel bed disclosed. By 1831 the houses were become a fashionable rival to Mayfair and, more than this, the new society tenants were leading the van in social fashion. To the horror of Mayfair, ladies and girls were seen to walk across the new squares unattended by footmen, an unprecedented act of bravado. Some one in Mayfair, perhaps Lord Granville, instantly coined the epigram: "Belgravia, where all the women are brave and all the men virtuous." Now, if you read *The Times* correspondence column last week, you will agree that Belgravia has slipped back a century. It appears that the bagsnatchers (late "cut-purses") have made Belgrave Square "one of the danger spots of London" once more.

THE OLD STAGER.



THE HURLER OF A PHYSICISTS' BOMBSHELL: Professor Albert Einstein, with Mrs. Einstein, in California, where the great Relativist is being lavishly entertained. Professor Einstein has executed a surprising *volte face* of late, having abandoned his conception of a universe fixed in immutable size. He has compared cosmos to a mystery contained in a closed box and states that until the lid is lifted no one will know what is inside. The old Einsteinian revolution—the belief in a spherical universe—is thus foregone in favour of the amorphous enigma of previous philosophers and physicists. It is believed that Professor Einstein is holding the theory of an ever-widening, non-static universe. It is also believed that the Professor will succeed in opening the box. One Dr. Edwards, of whom Professor Einstein states he has never heard, has accused the great German physicist of plagiarism



The Mirror of the Mountain: *Sca Fell, England's highest mountain. reflected in the glassy surface of Westwater, England's deepest lake. This surprising study of the giant of the Cumbrians was taken by Miss Mary C. Fair, who is known as a writer on lakeland under the pseudonym of "Silverpoint." Miss Fair waited for over five years to obtain the exact combination of conditions shown above, for an absolutely flat calm united with clear atmosphere is rarely encountered on this wild and impressive lake*

BEAUTIES OF ENGLAND'S WINTER COUNTRYSIDE

Sca Fell in its Snowy Mantle:
Hunting with the Cottesmore

After the Ball is Over: *The field leaving the meet for a run in the snow — a study of the "After the Hunt Ball" meet of the Cottesmore at Ridlington, near Manton. In the left foreground is Mr. W. S. Baird, the Master, leading is the huntsman, J. Welch. The heavy snow encountered recently in many districts has interfered seriously with hunting but, as we go to press, it is learned that the Belvoir, the Grafton, and the Atherstone have been doing well*

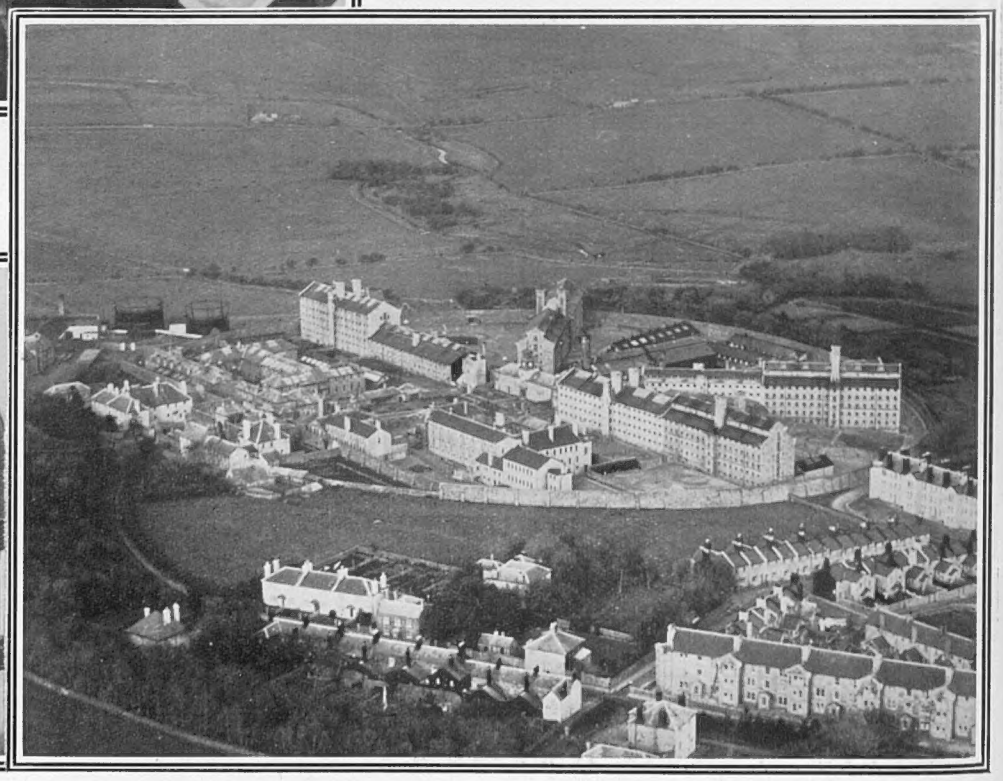
LATE NEWS *on the* HOME FRONT

THE WATER SPLASH: This, the most amusing spectacle in the Eton steeplechase, invariably draws a great crowd to watch the drenched competitors

THE FILM OF A *CAUSE CÉLÈBRE*: Mr. Cedric Hardwicke in the character of Dreyfus enjoys a pipe between scenes at Elstree

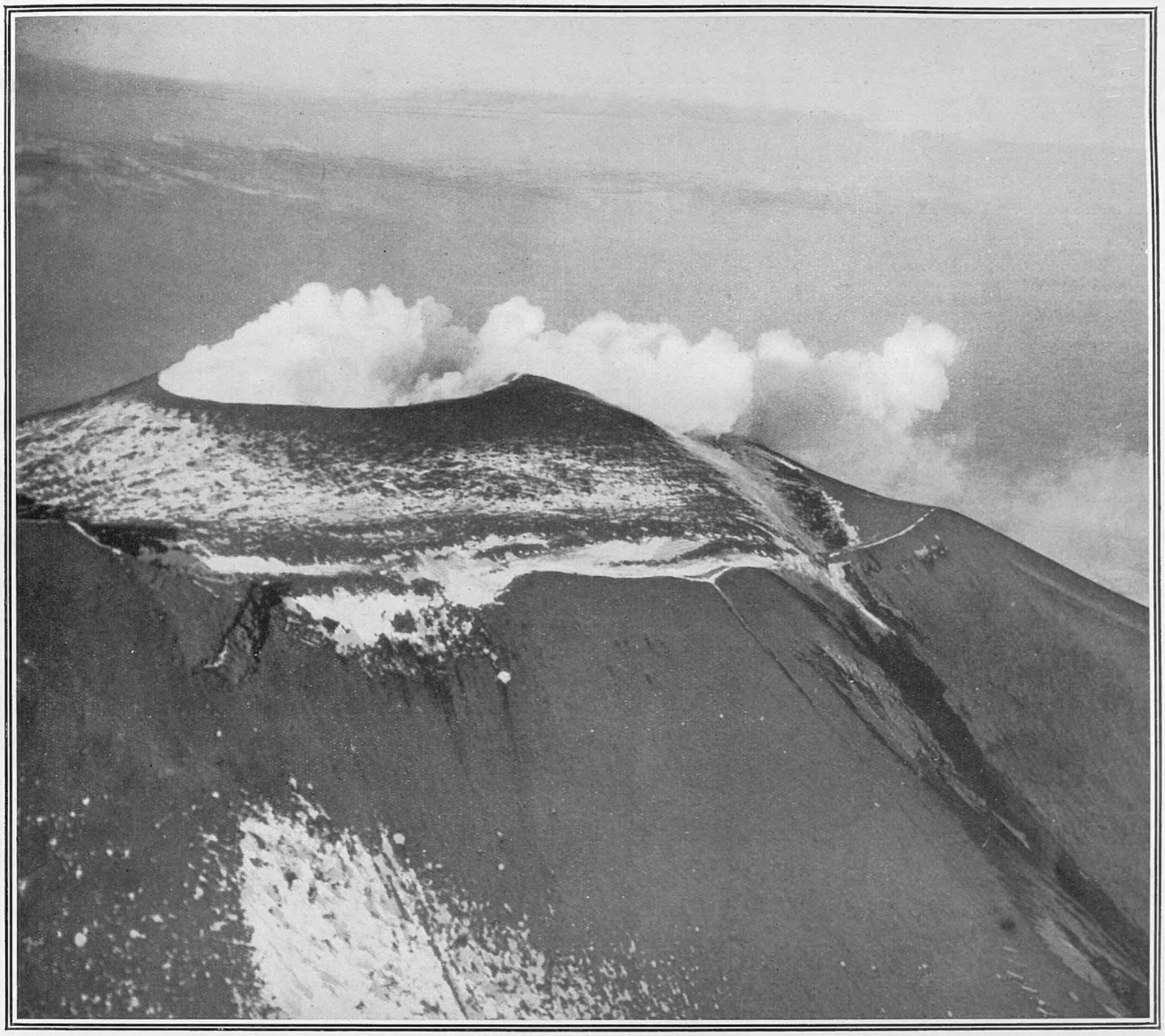
REQUIEM: The service on board the Destroyer *Keppel*, celebrated by the Rev. Oakey Hill, the chaplain of the *Defiance* in honour of the nine victims of the R.A.F. flying-boat which crashed with all hands in Plymouth Sound

BASRA BOUND: A squadron of short *Rangoon* flying-boats left Felixtowe for Basra. *Above*—Flight-Lieutenant Dalton Morris, Squadron-Leader Mackworth (navigator), Group Captain Welsh (C.O.), Flight-Lieutenants Hammersley and Ragg

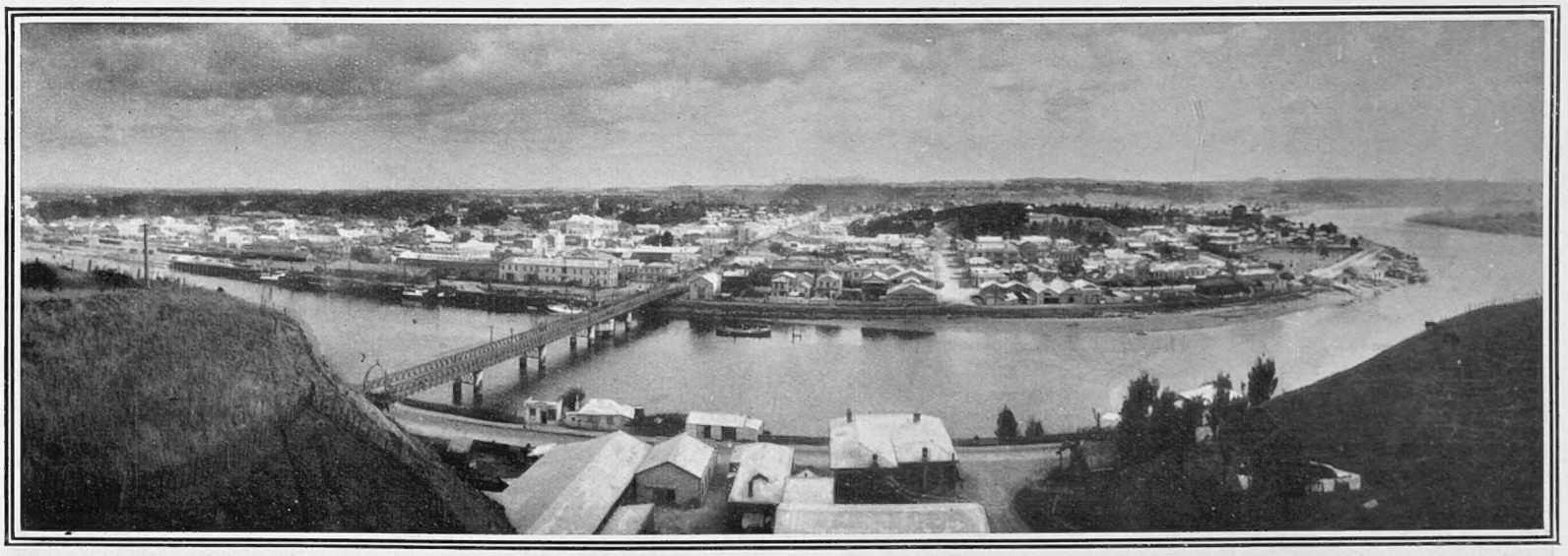


THE PRISON OF THE SOUTH: An aerial view of Princetown Prison generally termed Dartmoor, on which mournful and desolate expanse it is situated. Two prisoners escaped in a heavy mist last week, and by Tuesday both had been recaptured. The two parted company lest their association betray them

SHAKING CORNERS *of the* EARTH



THE GREATEST ACTIVE VOLCANO IN JAPAN: A remarkable view of Asama-Yama, just taken in winter conditions from an Asahi's aeroplane. The volcano is in Hondo and is some eighty-five miles north-west of Tokio. It towers to a height of 8,280 ft. and has a crater some 1,000 ft. in diameter. The last destructive eruption occurred in 1783



TRAGEDY IN NORTH ISLAND: Wanganui, one of the settlements in the district devastated by the earthquake that razed Napier and Hastings, killing approximately one hundred and fifty and rendering thousands homeless

The "News-Chronicle" achieved Fleet Street fame in its report of the New Zealand earthquake. Its account, excerpts from which appear below, was cabled by Mr. Ivemay of Napier, a survivor of the tragic tremor:—

"It was a pitiful scene. Screaming women sought vainly for their children, and were struck down without a chance. Nobody stayed in their homes. There appeared to be a general rush towards the Bluff Hill, and when the fugitives found that the Bluff was in ruins they ran in all directions. Men formed small bands to rescue the injured, but could do little. Many men were seeking their wives. The racecourse was made a base for the rescue work, and became like a casualty clearing station in war time. It is impossible to estimate the number of dead and injured. In the harbour all the boats were lying over on their beam ends. The water receded, and a line of surf swept far out, leaving a vast expanse of glistening wet sand. We saw part of the floor of the bay, a sight no one had ever seen before. People were still running wildly from the flat, they would race to the Bluff and then back again, aimlessly. As buildings began to totter faces appeared at upper windows of offices and business houses, in every one of these faces terror was written. Men and girls clambered on to window-sills. Then, as some of them paused, momentarily undecided whether to jump, walls were riven by cracks, sections dropped out, and the faces were lost to view amid a wild whirl of bricks, stones and dust. Clerks and typists were seen at windows, while the walls below them bulged outwards like the stern of a liner. Then the walls split with rending cracks, and dissolved in rubble. There was no respite."

WHAT *is* "CLIPPERTON"?

*All Paris has been Reading of a Strange Island far off the Coast of Mexico—*l'affaire Clipperton*—which has Sporadically Engrossed the Attention of Many Foreign Offices*

By JOSSLEYN HENNESSY

On February 2, Count Manzoni, the Italian Ambassador to the French Republic, visited M. Briand and informed him that H.M. the King of Italy, acting as arbitrator between France and Mexico in the affair of Clipperton Isle, had decided that it belonged to France. Behind this bare official announcement lies a diplomatic cocktail, in which the ingredients are the French, United States, Mexican and Italian governments, added in judicious proportions to a foundation of the Spanish Main, reminiscences of buccaneers, and a mystery coral isle.

Clipperton is a tiny isle in the Pacific Ocean, five square kilometres in area, about eight hundred miles from the west coast of Mexico. It enters into contemporary history in 1858, when M. Lockart, a shipowner of Le Havre, with a view to the exploitation of the guano to be found there, persuaded the French government to send a man-of-war to take possession of the island in the name of France. Nevertheless the island remained deserted after this and no exploitation of guano took place.

Thirty-nine years went by before, in 1897, the French cruiser *Duguay-Trouin* visited Clipperton, and found that some enterprising Americans had hoisted the stars and stripes, built a little wharf, and were taking French guano away. The French government protested at Washington and were conceded their rights without question. When it is remembered that the second French Panama Canal Company had been formed three years before, in 1894, and that feeling in America ran so high against French and European presence in Central America that in this very year, 1897, Congress received a report from a board of engineers on the construction of a rival canal through Nicaragua, it is somewhat surprising that the State Department does not seem to have connected up the strategic possibilities of Clipperton with either the Panama or Nicaraguan Canal.

However, the luck of Clipperton held good, and it continued its career as a subject of correspondence in the diplomatic silly season. Some months later the Mexican government sent the warship *Democrata* to Clipperton, and now the isle saw the Mexican flag flying in the Pacific breezes, There was then a pause in the Clipperton dossiers of the Quai d'Orsay until 1907.

In that year, relates M. Jean la Veyrie, the old French battleship *Catinat*, which was on a four years' Pacific cruise, was on its way from Acapulco in Mexico to Tai-Hoaé in the Marquises islands; at dawn on December 18th, she found herself ten miles north of Clipperton; the Captain, deciding to visit this speck of France, hoisted the French colours and approached the tiny wharf. As he landed some twenty Mexican soldiers, drawn up in review order to meet him, presented arms and dipped the Mexican flag in courteous salutation. As may well be believed there was a good deal of annoyance in the air, but such courteous usurpers appealed to the French captain's sense of the decorous, and instead of bombarding the Mexicans off the face of the earth, he sent a dispatch to the Quai d'Orsay. The Clipperton dossiers were once more in motion. Representations to the Mexicans were vain; they replied that the French had installed themselves on territory that had been Spanish—Mexican from time immemorial. A mountainous pile of correspondence accumulated in the two Foreign Offices.

Too much credit need not be given to the report that to deal with *l'affaire Clipperton* became a kind of punishment for junior members of the Quai d'Orsay, who had annoyed their seniors in any way, but finally being after all very busy people and having several European crises to attend to, the Quai d'Orsay decided to pass the whole business on to an arbitrator. Eventually the Italian government in 1908 agreed to undertake this delicate task, and peace reigned in Paris, Mexico City and Clipperton. Now, after twenty-three years of study and meditation, the august arbitrator has enriched the Republican Empire with five square kilometres.

The French press has in the last few days been full of amused comment on these happenings, but no one has bothered about the previous history of the isle, nor even asked who or what Clipperton was. At the request of THE SPHERE, therefore, I have been at pains to trace the forgotten Clipperton.

John Clipperton was mate to the celebrated circumnavigator, buccaneer, privateer and pirate, William Dampier, and, though less famous, he seems in some ways to have been an even more doughty sea-rover. In 1704, Dampier sailed on a privateering-piratical expedition to the South Seas, with two ships, the *St. George* and the *Cinque Ports*.

The master of the latter was no less a person than Alexander Selkirk of *Robinson Crusoe* fame, and it was in May, 1704, that having had differences of opinion with his captain he was marooned on Juan Fernandez. In June, Dampier put in at the Gulf of Nicoya to repair his ship; there Dampier and Clipperton fell out, and the mate, with twenty-one men, mutinously seized a barque that had been recently captured and sailed away.

He was, records Dampier's biographer, Clark Russell,* "the completest rogue at that time afloat." In his little barque, armed with but two small guns, he sailed along the coast of Mexico, captured a couple of ships, one of which he sank; whilst, since the other was new he demanded 10,000 pieces of eight by way of ransom for it, and got 4,000. He then sailed to the Gulf of Salines, cleaned his cockle shell of a boat, and made for the East Indies, reaching the Philippine Islands in fifty-four days. He afterwards bore away for Macao, in China, where his crew deserted him; eventually he succeeded in making his way to England.

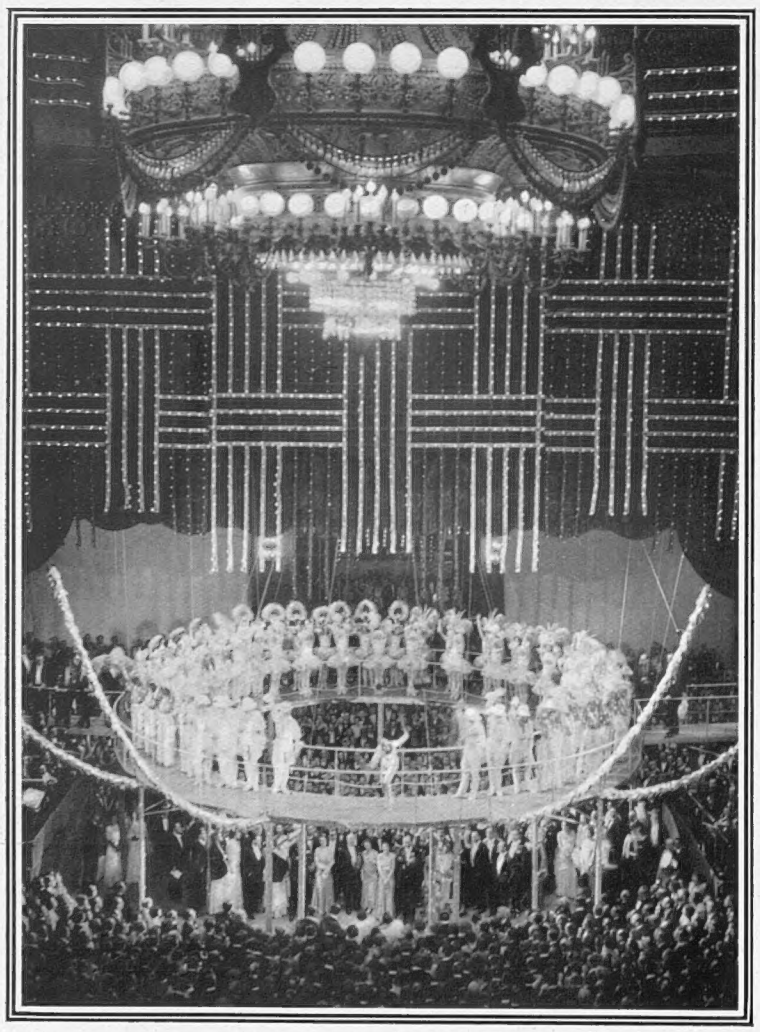
Clipperton was a pirate bold of the early eighteenth century and cut a figure with Wm. Dampier

It is impossible to appreciate how really remarkable this 15,000 miles voyage across the Pacific was unless one visualizes the conditions of navigation in the early eighteenth century. Their ships were so unwieldy that it was scarcely possible to get them to beat against the wind; readers of Anson's *Voyage* will recall that it took the good ship *Gloucester* from June 21 to July 23 to cover the last ten miles to Juan Fernandez on account of the set of the wind. They were like floating castles to look at, and like clumsy wagons to sail. Voyages which nowadays take three weeks then might take twelve months. Their bottoms had no stronger protection than pitch and tallow, so that in any long voyage it was frequently necessary to careen, for which deviations from the route might have to be made in search of a suitable place.

Then there was the scurvy. The brine in which the old navigators preserved their meat made it as hard as wood before they were out of the English Channel; consequently few ships managed to pass the Horn without losing half, and often two-thirds of their crews from scurvy. Clipperton in 1704 used much the same instruments for navigating that Christopher Columbus had used over 200 years before. To measure the sun's altitude he had the astrolabe, the cross or forestaff, and Davis's backstaff, instruments as primitive as a Roman catapault in comparison with a modern howitzer. With these Clipperton could determine his latitude to within a degree or two, but he had no means of finding his longitude. Yet in these cumbersome 30- or 40-ton ships, without instruments, with ludicrous charts, sailing with one hand tied behind their backs, as it were, our seafaring forefathers went out into the remotest corners of a world that was to them full of the terrors of the unknown; they considered mermaids and sea-serpents, for example, very real dangers.

But though John Clipperton gave his name to the isle which has been troubling Foreign Offices for so many years, it is doubtful whether he ever saw it. The name is due to Admiral Burney, the sailor who took command of Cook's expedition when that great explorer was killed. In 1803 Burney published his history of Pacific exploration, in the course of which he conjectured that Clipperton probably sighted the isle on his way to Macao. The first authenticated discovery is, however, that by the Frenchman Du Bocage in 1711. Spanish maps of the same century show that its existence was known to them, and it is variously called Medano, Pasión, and Clipperton. But there is no document proving anything earlier than the French discovery.

Further research may one day solve the Clipperton mystery; I calculate, taking an average of the intervals at which Clipperton recalls its existence to the world, that this should occur in 1967. Meanwhile, there is irony in the report that while awaiting the decision of its fate, the Mexicans have had time to scrape the soil down to rock-bottom, and that the isle's present proud possessors will have to wait a good hundred years before enough guano has accumulated to render its exploitation possible. If that "completest rogue" Clipperton only knew what alarums, excursions, hopes, disappointments, and mysteries his little island causes this world, his Satanic Majesty would surely allow him a moment's respite for a deep piratical chuckle.



THE BALL OF THE "PETITS LITS BLANCS": The scene in the Opera House at this great annual occasion, when the representative beauty champions were present. Miss Josephine Baker and her girls are seen above on the circular run-way. Conversation even at this function was quite occupied with "l'affaire Clipperton"

* (*Dampier*, by Clark Russell (Methuen).)

"The SPHERE" SURVEYS the WORLD

THE CONSECRATION OF THE KHARTUM CATHEDRAL BAPTISTRY TOWER AND BELLS: This was effected on the forty-sixth anniversary of the death of General Gordon. The consecration was performed by Bishop Gwynne. The tower and bells were dedicated to the memory of Sir Lee Stack, the assassinated Sirdar

A CHINESE GRADUATE OF TWO EUROPEAN MILITARY ACADEMIES: Captain Robert Ho Tung, son of Sir Robert Ho Tung, with his chief, Marshal Chang Hsueh-liang to whom he is A.D.C. Captain Ho Tung is a graduate of the Royal Military Academy, Woolwich, and the Ecole d'Application d'Artillerie, Fontainebleau

Inset above—*SELF-MADE MAGNATES OF THE EAST AND WEST: Sir Robert Ho Tung and Mr. Robert Dollar, the American shipowner. Both men started life with nothing and both are now millionaires. The picture was taken in Idlewild, Sir Robert's Hong Kong residence*

CAIRO TO THE CAPE AND BACK: One of the three Vickers Victoria bombers in the Suaan with native warriors lined up with their spears in the foreground. The three planes, detached from the 216th (Bomber) Squadron, R.A.F., left the aerodrome at Heliopolis on January 12, and arrived at the Cape on February 6. They are now, as we go to press, well on the way back—one of the most notable of the many almost unheralded and insufficiently appreciated exploits achieved by British government machines

The ROUND of the DAY

ENGLAND'S MERMAIDS: Miss Joyce and Miss Doreen Cooper, who successfully swam against a relay team in Paris for a cup given by the famous French newspaper the "Petit Parisien." Miss Joyce Cooper established a new record by beating Mlle Yvonne Godard over 100 metres in 1 min. 10 secs.

ELECTRICITY FROM SUNLIGHT: Dr. Bruno Lange, whose researches into solar electricity are described by Lady Drummond-Hay on p. 238

TORIES OF THE IMPERIAL DAYS: Mr. T. H. Lister Salisbury, Miss Muriel Barnby and Major Granville Kenyon as Lord Salisbury, Queen Victoria, and "Dizzy" — three of the characters in the vivid *Tableaux vivants* at the British Empire Union "Lion" Ball at the Mayfair Hotel

THE EMPIRE BOWL: Mr. George Darks of Stratford-on-Avon with the 600-oz. octagonal bowl produced for the British Industries Fair. The panels are alternately filled with imperial monuments and allegorical designs. The figure of Peace stands on the orb of Empire

RIBBONS OF METAL: A machine in the Mint stamping out 1931 shillings from strips of alloy — 50 per cent. silver, 40 per cent. copper, 5 per cent. zinc, and 5 per cent. nickel. The coins, owing to the bank's demand at Christmas, made a premature appearance

VICTIMS OF THE 1931 'FLU: Tam o' Shanter and his son, Blue Bonnet, a couple of Cairns, with goggles and a hot-water bottle, have fallen victims to the too prevalent complaint which is, without fatality, rendering the life of 1931 a weariness to the flesh

ISOBEL POWYS: A PORTRAIT BUST BY EPSTEIN: The exhibition of Mr. Epstein's works at the Leicester Galleries is drawing all artistic London to Leicester Square

ESTHER: A STRIKING BUST AT THE EPSTEIN EXHIBITION: This is an undraped bust entitled Esther

MAY: A PORTRAIT BUST BY MR. EPSTEIN: Most of Mr. Epstein's busts in the present exhibition show the sitters in serious contemplative mood as does this one of May

"MORTAL SIN" IN MALTA

A Fearless and Frank Revelation by "The Sphere's" Special Foreign Correspondent of the Causes, the "Status Quo," and the Prospects in the Island where Church and State are once again at Loggerheads

By FERDINAND TUOHY

MALTA, February.

At breakfast in the *Knight of Malta* on my way here from North Africa, I inquired of a member of the crew why passengers were so few.

"Boycotted, sir. Launched by Lady Strickland, sir."

At my raised eyebrows:

"Pal before me—broke a rib last voyage—couldn't even get absolution, sir."

"Because he belonged to this ship?"

"'Strickland man.' Each time he tried, the priest heard his confession but he wouldn't give him absolution. Told him instead to go outside and pray to see the right way and then come back if he did."

"What about you? You're a Maltese and a Catholic, too, I suppose?"

"Oh, yes, sir. But time enough to bother when Easter Duty comes round!"

"Then you also will be offered the alternative of joining the anti-Strickland Party—of leaving this boat and your job, that is—or of being deprived of the Sacraments?"

"That's about it, sir."

A little later I went on deck and looked towards Valletta, just visible. And I reflected, "I wonder will they in England laugh when I write of a Maltese sailor's Easter Duties?" And further, "Northcliffe advised you once to avoid one subject always, Religion. How about it?"

How about it!

In the distance, *Eagle* or *Courageous*—I know not which—anyway, one of those staggering whale-tanks. Overhead, as many as thirty or forty aircraft behaving gloriously in formation, doing everything they desire—now 5,000 up hardly a minute later (or so it seemed) clipping the waves. And always in formation. All through history this Malta has been a cross-roads of destiny. Now Phœnician, now Carthaginian, now Roman; after the dark ages, base of those Knights of St. John who defended the Cross against the Crescent, then momentarily Napoleonic, then English. And to-day the hub of most of that Fleet we haven't sworn away. And to-morrow a strategical air station without rival in Western Europe. Anything that happens on yonder 100 square miles means so much (shall it next be Fascist, for example?) that Lord Northcliffe's sound advice must for once be laid aside. But I promise to tread gently. . . .

On shore, this trio: Portsmouth atmosphere, old Italian setting, Honolulu weather. Crowding everywhere: the British Navy. You cannot get down the streets for it. Twenty thousand tars in port, ever swinging in a hurry in fours and fives; the summit of human well-being, foot loose from this world of woe. What do these men care for, what do these men *know of*, the drama that evolves about them—dark as those great black, hooped hoods which the Maltese women have not yet doffed although their *raison d'être*—protection against Napoleon's men—must surely long have lapsed? The Mediterranean Fleet, as the Garrison, is supremely indifferent to, utterly uninterested in, the impasse between Pope and Peer which has cast a blight over this island. It is none of their pidjin. Just as we sat in Cologne while France sought to break off the Rhineland, and were much more interested in whether sport would be interfered with, so here at Valletta the national *flair* for detachment is again all in evidence. But I must needs step from the bright and sailory Strada Reale and descend stone-stairs-of-streets and listen to how perhaps 20,000 Maltese have not been able to go to Confession or Communion since last Easter, and how these most devout of people feel the spiritual deprivation intensely, and what is going to be done about it? That is my pidjin.

For 106 years, until granted a restrained Constitution in 1919 in the wave of self-determination, the Maltese were apparently content under our rule, which they themselves had preferred rather than continue to be a kind of island Flanders. They lived on and by the Fleet, as they do to-day—what would supervene economically to Malta's 230,000 population if the round forty or fifty thousand British men, women, and children which our Fleet and Garrison mean locally, were to vanish, is a question worth asking. From 1919 on, a majority of the priests progressively sought to direct the voting of their parishioners. They did this—in no way denied—because for the only time in its recorded history, since B.C. 1400, Malta, 100 per cent. intensely Catholic community, found itself under a Protestant country, and the priesthood claimed that said country was seeking to proselytize and, incidentally, that it had cancelled several clerical privileges. And now here at last was the vote with which to correct things. One can interpolate forthwith that the proselytizing allegation is a complete—fib. If there be any people upon earth who do not interfere religiously, it must be the current English. This, I imagine, may in some measure be due to disinterest (though I have heard it put more flatteringly). I remember, in France, no one ever knew to what religion anybody belonged; the matter never arose. But to continue:

When we took over in 1813 one or two alterations *were* made, and later added to. Very specially placed because of her religious past, care was taken to assert that Malta would be independent of all foreign Powers, the Holy See in temporal affairs—it was still the time of the Roman States—being therein included. Then we stopped the local clergy being tried only by their own courts because that hadn't been English law for centuries, and Malta was English. For a century exactly—1828 to 1928—this new law ran smoothly and with Papal acquiescence; such rare priests as ever transgressed faced the same justice as did their parishioners. Finally, in 1836, and—note well—because it was felt the Italians were seeking to regain ascendancy in Malta by Church manœuvring, it was decreed that the religious orders which swarmed over the island should no longer have foreign superiors, that these nominations would require local governmental sanction, and that the Bishop, while of course still appointed by the Pope, would also need to be *persona grata* to us. All this in pursuance of one fixed policy: His Holiness supreme spiritually, Britain supreme politically (or as O'Connell once put it, "We take our religion from Rome, but our politics from ourselves"). And because of the strategical importance of the island.

One Lateran Treaty was signed two years ago. Since then things have gone all to pieces as between Church and State in Malta. Ever since the Fascists and the Holy See came together. I record the simple date-synchronization. Merely adding that Malta was under Roman hegemony for half her history, and that the Fascist motto is, "What once was Roman shall return to Rome."

We know the triviality that precipitated matters. A Maltese head of an order was forced out because he had no use for politics, pro- and anti-Strickland; an exceptional Italian priest, Father Carta, was sent from Rome in his stead, and presently this newcomer was ordering two British subjects, Maltese priests, out of their own country. Naturally, the Stricklandites "laid for" Father Carta. And they duly "got" him. Sending—while there existed postal restrictions during crisis—letters to Italy through the Italian Vice-Consul, a noted Fascist.

Father Carta was prosecuted. The Bishop announced that he withheld his sanction for such prosecution. I hope you have noted where we have now arrived. By appointing a foreign superior, Father Carta, the 1836 law had been broken. By claiming the power to withhold his priests from the common law, the earlier decree banishing ecclesiastical courts was being indirectly challenged by the Bishop. Things could not go on so. Perhaps unwisely, we invited Rome to send a delegate to look the whole position over. An Irish monsignor came, saw, said he was satisfied, and then reported all against the Stricklandites, and out came the famous *non persona grata* ban on Lord Strickland, from the Vatican, to be followed by the still more famous Pastoral of last May announcing that all who voted for Lord Strickland in the oncoming elections would commit a mortal sin and would be denied the Sacraments. Whereupon we "interrupted" the Constitution, and Sir John du Cane has governed with advisers ever since, the difference being that he need not take their advice as he had to do from the Ministers of an elected Government. And our prestige and hold has steadily waned since, in consequence. *All* Maltese feel passionately about losing their self-Government. And all native Malta is now waiting in suspense to see whether this Easter's Pastoral will bring modification. So that such horrible things as mortal sins may be forgotten. (I fear they wait in vain, in this direction.)

The position is an exceptionally difficult one, not rendered the less so by reason of the fact that responsible Catholic England has lined up on the side of "No Church politics in Malta." I do not see why it should not be known that a distinguished member of the suspended Government received the Sacrament from a very high hand in London. Well-off Maltese can do this kind of thing: go specially to other countries to perform their duties. Here we have the anomaly, in a one and universal Church, of a man being a religious outlaw in one country and receiving the Sacraments in another.

What is the use of writing if you don't write the truth?

[redacted] always interested me, if only because he once did me the honour of meeting me. In April, 1924, he received me on bended knee and alone with one other, one Lloyd Gibbons, now named as U.S. broadcaster. I am sorry to say that, in my estimate, His Holiness has proved an indifferent Foreign Secretary—for that is what he likes to be, also. The Lateran Treaty forged a tie not so much with Italy as with a political force therein which may not last for ever, and which is constantly capable of landing the Holy See in difficulties as, for example, in the case of the recent royal wedding. As in the case of Malta.

The Catholic Church was, and is, as free as the air in Malta. And what more can it require? Anywhere? But 80 per cent of the priesthood there have chosen either to go Nationalist or to be caught up in the whirl of "Italianism" which is being so constantly radiated by the Fascists. This clerical mass wants Protestant England out. I even heard the parallel to Ireland drawn, and promptly dealt with it. One of Ireland's great points was that never, never had England been invited there (except mercenaries about Henry II's times). Nor do the Maltese, generally, want us out one bit. Lord Strickland, himself native-born, carries a great deal of the island and he might carry a deal more if all who desired to go with him were not faced in their Mediterranean minds with Hell if they did so. The noble Lord seemingly has not exactly *in manière douce*—even says dreadful things about the Holy Father while all the time remaining a practising Catholic in so far as they will let him practise—yet if he be not acceptable in one place, assuredly a certain Bishop is undesirable in another. Perhaps—who knows—the Honourable Mabel Strickland who is, so I heard, a very important personage, may manage to keep father down a bit in future? And then again, perhaps the Hon. Miss Mabel may not. . . .

Meanwhile, what is going to happen? The existing impasse tells progressively against us. We are unrepresented at the Vatican, and that is unfortunate, while each day of suspended Constitution in Malta sends Maltese into the Nationalist or the Fascist camp, which two may well intertwine more than appears on the surface. The Fascists have got many young Maltese into black shirts and the recruits and their mentors comport themselves brazenly enough. They sport their shirts (the French in Tunis have stopped this and we might also, since this is no ordinary piece of apparel); Fascism has its camouflaged propaganda centres in the Casas Italiana and Bologna and the Dante house; it subsidizes sheets in the vernacular; and incessantly Valletta is flooded with newspapers from Italy filled with insidious lies about British rule. In Italy, the Fascists are set upon making our deadlock with Rome a national and patriotic occasion.

"In twenty years' time you will be Italian again." Such is the Fascist slogan, though the Maltese never were at any time "Italian." The Italian scheme is so to develop the *terra irredenta* cult that an atmosphere may materialize favourable to Rome claiming the island as being Italian by race, affinity and culture when some future occasion of international readjustment crops up.

To conclude: In all my travelling experience I have never come across a more one-sided story than this of Malta. I simply have failed to find a single thing that the Church has suffered, or can advance. Except that, in its estimate, Lord Strickland, personally, is hardly nice to know. Well, the Maltese alone can get rid of him, and the way to decide on that is to raise the unheard-of "mortal sin" ban so that elections may be held. Possibly these elections might let in Mizzi's Nationalists and let out Strickland, and that might ease matters.

Meanwhile, whatever Rome does, we are doing something. A new Constitution is being worked out, the cardinal factor in which will be a guarantee against sacerdotal interference in politics henceforward. In Malta there has existed no law, such as we have, relative to undue pressure which may lead to the unseating of a member. This will be remedied. Another vital innovation will bear on language. Locally, 17 per cent speak English, 15 per cent Italian, 2 per cent French, 10 per cent English and Italian, and the rest anything. Yet the language of the Law Courts has always been Italian, vital matter. This, also, will be remedied. And one hopes, furthermore, that plain words may be addressed *on indisputable facts* by Whitehall to the Palazzo Venezia. And that Lord Strickland may in due course be tactfully offered a bigger and better Governorship overseas. And that he may accept it. And that we may shake hands again with the Vatican. And leave Malta to its rightful occupants, the Maltese, and those jolly fellows whom all the nice girls are reputed so to love.

TRAGEDY IN MEXICO: A scene of the aftermath of the earthquake in Oaxaca where the death-roll amounted to seventy-one and incalculable damage was done to buildings

WHY THE EARTH QUAKES:

How They are Caused, Recorded, and Predicted

Described by LEONARD V. DODDS

For many years it was believed that all earthquakes were caused by the same force which is responsible for the eruption of volcanoes. After further investigation, however, this explanation proved to be inadequate, and it was shown clearly that there are two kinds of earthquake, volcanic and tectonic, and it is the second kind which has caused most of the seismic catastrophes of history.

Tectonic earthquakes are caused by the sudden fracture of underground masses which adjust themselves to new pressures and strains by folding and cracking. Most major earthquakes are associated with the formation of a new fault in the stratum of the rock, or with movement along an existing fault where there is less resistance to the terrific strains caused by the fracture. Changes in a plastic nucleus supporting a shrinking crust is a simple though not wholly satisfactory explanation of these phenomena. Far more difficult to settle, however, is the question of what causes the initial movement. Many explanations have been offered, but none so far provide a solution which can be accepted with certainty. One theory was that steam explosions are set up by molten rock impinging on subterranean water, but this hypothesis now tends to be superseded by the theory of balanced mass.

Mr. A. W. Scrase, seismologist at the Kew Observatory, where the British official seismological records are made, explained that the tendency seems to be for an earthquake to occur at the foot of a mountain, or, in the case of submarine tremors, at places where the sea bottom shelves rapidly. If it were possible to take a section of the earth's crust from the centre outwards and weigh it, in theory each part should weigh the same, that is, a mountain, or depression in the ocean bed, on the surface of the earth should have corresponding masses on the under side. It appears that this is not necessarily so, for generally speaking, mountainous regions are more unstable than other land and it seems as if they may be left unbalanced. Consequently there is a tendency for a strain to be set up at the weakest point which is usually at the foot of the mountain, and this may increase owing to disturbances within the earth until a fracture becomes inevitable.

A somewhat different theory, but of a similar nature, has also been advanced. As the materials of which mountains are formed are of less density than other portions of the earth, they are more subject to denudation by rain and frost. This, in time, would so decrease the weight of the mountain that the natural balance would be lost and a fracture caused by the crust of the earth being pushed up to replace the denuded weight. This action is analogous to the manner in which the top of an iceberg, much lighter than the portion beneath the sea, melts, and the iceberg rises in the water and the deficiency is restored.

It would seem, however, that natural denudation would not be sufficient to cause an earthquake, and, so far as is known, all seismic disturbances originate far below the surface, and are not affected by exterior influence. The average depth of an earthquake is something approaching thirty miles, and no one knows what geological conditions are like at that depth. Ten miles down is probably the most of which we can speak with certainty.

Earthquake tremors radiate from the focus, decreasing in intensity as the distance from the centre is increased. Such vibrations are of two kinds: first the primary waves, which travel through the earth, in which the particles vibrate to and from the centre of the disturbance; secondly the secondary waves, travelling along the earth's surface. The vibration of these particles occurs at right angles to the direction of the movement. It is these waves which cause the damage. The principal shock is a matter of seconds only, rarely lasting so long as a minute, but the tremors, or aftershock, may continue for many hours, and the earth begins to vibrate within twenty minutes of the first shock. After the Japanese earthquake of 1891 there were no less than 3,365 aftershocks of varying severity extending over two years.

This year has started tragically and is in marked contrast to 1930, of which the first four months were described as "a period of seismic tranquillity unequalled in the recent annals of seismology." Dr. J. W. Gregory has called attention to the fact that the way in which earthquakes run in chains was very clearly shown last year. On May 5 there was a disastrous earthquake in Eastern Burma. The western extension of the chain was next felt in North-west Persia on the following day when about 2,000 people were killed. On July 3 came a further outbreak in the series which was felt throughout Assam and most of Bengal.

Dr. Charles Davison of Cambridge, one of the greatest authorities on the subject in the world, has indicated how the destructive power of earthquakes may be lessened in two ways—by forecasting the occurrence of earthquakes, and by the proper choice of site and type of building. Forecasting is yet in its initial stages, but one hopeful method seems to lie in the study of foreshocks, and it is believed also that in certain earthquake centres before any movement takes place along a great fault, some visible distortion would be apparent. These possibilities are now receiving the serious consideration of scientists in all parts of the world.

At present, more can be done by choosing suitable sites and building designs. Damage to property which is built on hard rock is always less, and soft ground, especially new ground such as recently filled-in marshes, is most susceptible. In Japan great progress has been made in the construction of earthquake-proof houses. The roofs are exceedingly light; chimneys are short and thick; arches are avoided; and rafters run from the ridge-pole to the floor sills. The essential point is that the whole building should be able to move bodily as one block with its foundations. Modern steel-brick buildings appear to be very successful, and in the Tokio disaster of 1923 about half the buildings of this kind were unharmed, while brick buildings crumbled into ruins, and wooden ones, which withstood the shock fairly well, were consumed by the fire which followed.

Much interest has been aroused by the remarkable earthquake predictions made by Dr. Martin Hanko, of Pecs University, Hungary. On several occasions his forecasts have proved remarkably accurate, but, so far, no scientific explanation of the methods used has been made. Dr. Hanko believes that his success in forecasting major seismic disturbances supports his hypothesis as to the cause of earthquakes, but he needs further confirmation before the theory can be divulged.

Dr. F. J. W. Whipple, Superintendent of Kew Observatory, explained that at present no definite method of predicting earthquakes is known and seismologists are much interested in Dr. Hanko's claims. Earthquakes seem to have definite cycles and certainly have known centres. Sometimes shocks have occurred regularly at intervals of three or four years in the same area; in another case an outbreak of tremors came in September for several years and then disappeared; but as yet there is no hypothesis which puts prediction on a scientific basis.

Earthquakes appear to follow to some extent certain periodic laws which at present are only very vaguely understood. For instance, it has been noted that more destructive earthquakes occur in the winter months than in the summer. This is in agreement with the theory of balance, for the greater winter activity is ascribed to the increased stress due to snow accumulations and to barometric gradients. In some earthquake regions there appears to be a definite semi-annual period when shocks are most prevalent and when they may be expected; and there is also evidence of a periodicity which may be connected with the conjunction, or opposition, of the sun and the moon.

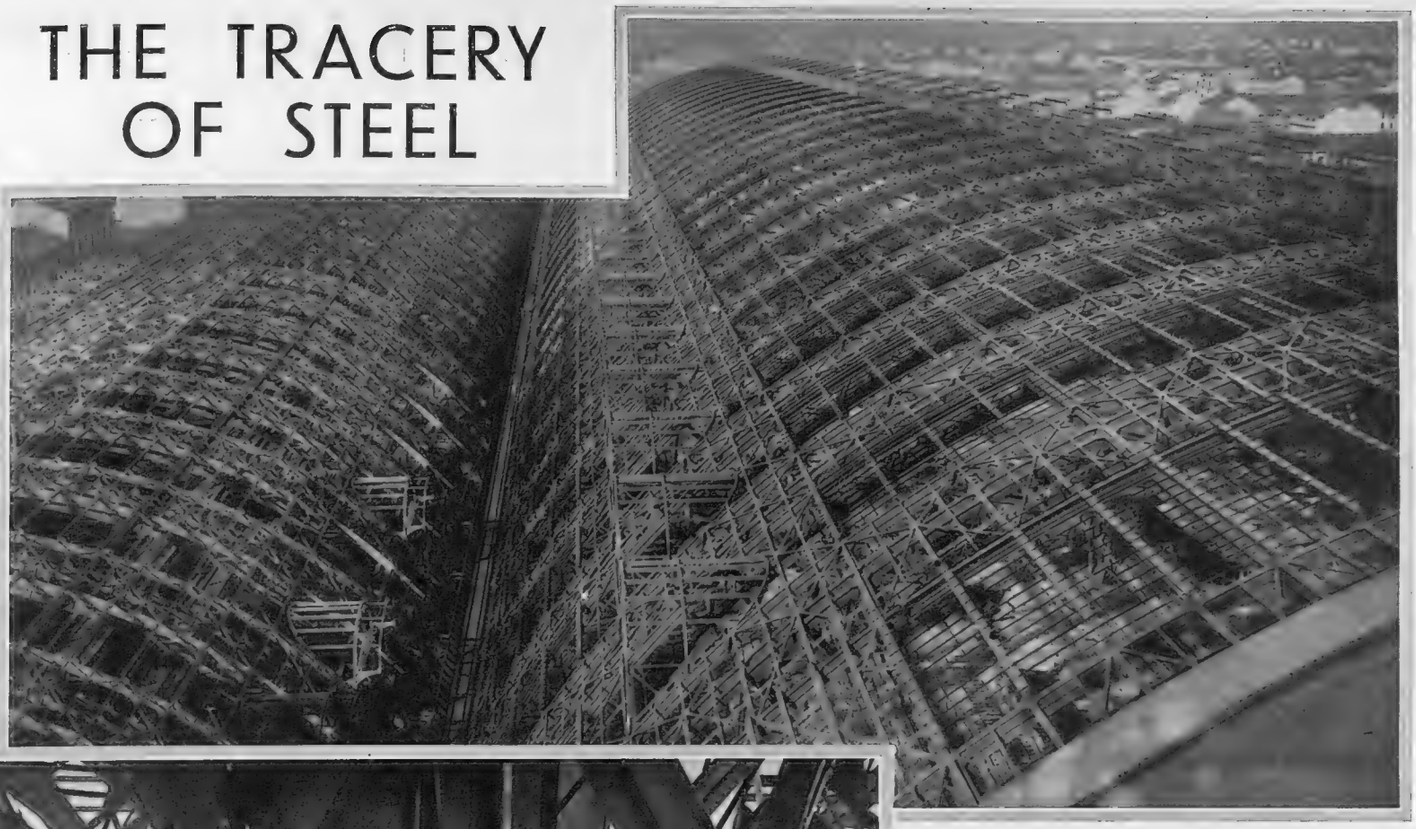
The seismograph, by which earthquakes are recorded thousands of miles from the centre of destruction, is sensitive to the slightest vibrations of the earth's crust. In all parts of the world these instruments are kept working continually; and, by a delicate arrangement of pendulums, a line is traced by means of a sensitive point on a roll of smoked paper slowly unwound from a drum. Under normal conditions, the line is practically a straight one; but, when the earth is disturbed, the pointer swings from side to side and traces a zig-zag line. The tremors arrive in waves of which there are two distinct types. The primary waves are followed shortly afterwards by secondary waves, both of which travel through the earth.

Mr. J. J. Shaw, secretary of the Seismological Section of the British Association, explained that, from the length of time separating the arrival of the primary and secondary waves, an estimation can be made of the distance where the disturbance occurred. The primary waves travel more quickly than the secondary, and the speed varies from eight to twelve kilometres a second to about six kilometres a second; the greater this length of time, the greater is the distance from the disturbance. A check on distance calculated by this method is also gained from the time separating the arrival of the second and third types of waves. The speed of the surface waves is four kilometres a second; and, from this decreased speed, it is deduced that, below the crust of the earth, which is believed to be about fifty miles thick, there is a central core of quite different and more dense metallic material which transmits vibrations with greater speed.

Though these calculations give the approximate distance away, the actual centre of the disturbance is not indicated. The clue to this problem is the direction from which the first impulse comes, and two pendulums are used—one orientated north and south and the other one east and west. The amount of movement of one or other indicates the direction in which the centre of the shock lies. The more usual and simpler method, however, is to work out the distance and then swing the circle of that radius on a globe. The seismologist knows where the earthquake centres of the earth are, and so the actual site of the shock can be determined with a considerable degree of exactitude.

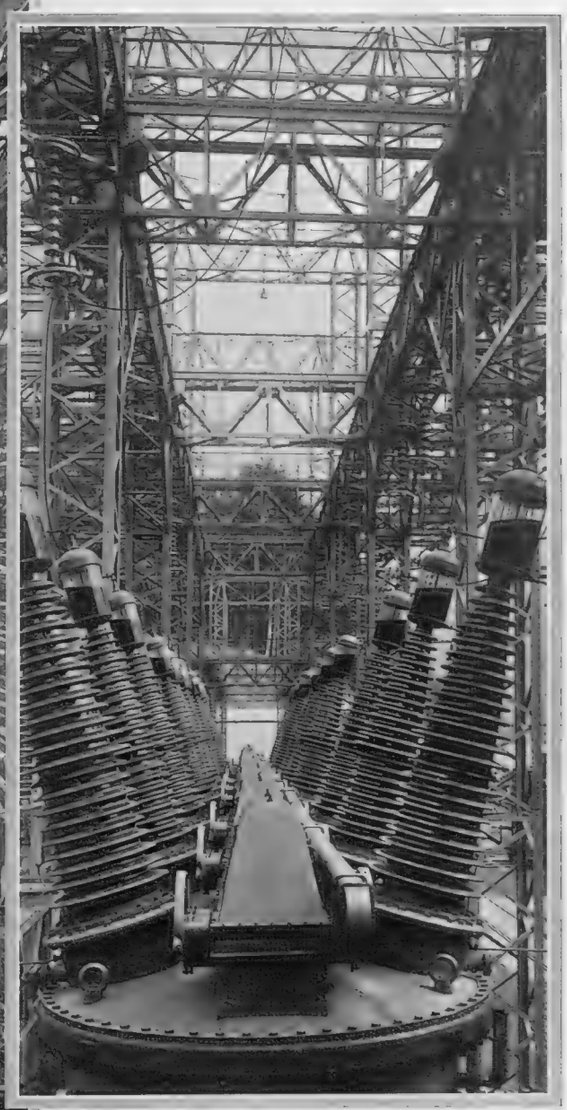
EARTHQUAKE REFUGEES: Natives of Oaxaca, Mexico, slept in the open for fear of being buried if their houses fell. They slept—or lay awake—uncomfortably near their tottering homes

THE TRACERY OF STEEL



EUROPE'S FINEST STATION: The new Central Station, Milan, which houses scores of lines beneath the double vaulted roof

FAN-LIKE ARCHES OF STEEL: One of the great pylons dividing the gigantic arches in the new railway station now in use, though yet incomplete, at Milan



220,000 VOLTS: A portion of the open-air structure in the Speicherkraftwerk (electric power station) at Heraecke—said to be the greatest power station in the Old World

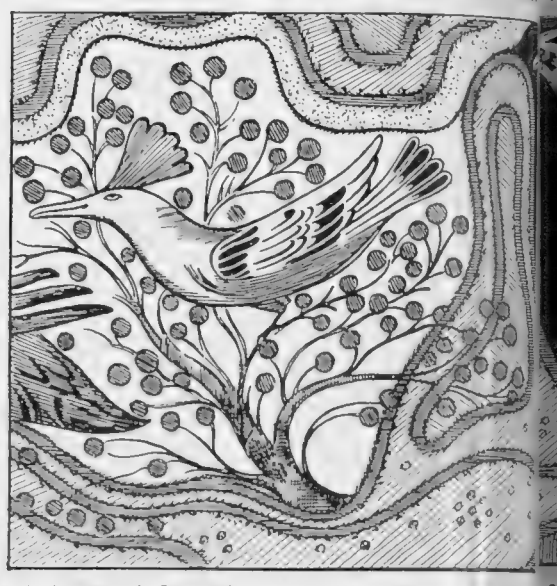
The modern conception of beauty varies widely from the canons of classicism, and in many forms of modern art steel is becoming increasingly a medium of loveliness. The great public works shown above exemplify some of the more decorative patterns "wrought in steel against the sky." These have a stern, austere, almost stark attraction which, to the initiate, is infinitely more arresting and satisfying than a more obviously "pretty pretty" piece of architecture.

THREE ASPECTS OF A YOUTHFUL IVORY GOD: One of the most interesting finds unearthed at Knossos. The proportions approach the perfection usually ascribed only to the Golden Age of Hellas. It shows more than any other find the lithe form of the Cretan of Minoan days

The CRADLE of EUR

The Excavations and Revelations
Crete, One of the

THE GOSSIP FRIEZE: An amazingly modern scene



THE PARTRIDGE FRIEZE: To the left is the hoopoe—feeding—a fit ornament to an hotel. This is refere

A TRIUMPH OF RESTORATION: A female figure at Kadmeion—an astounding piece of reconstruction

FEMININE TOREADORS: A restored panel of wall-painting showing two girls of gentle birth who, under the of the modern Spanish bull-ring are tame—the performing of acrobatic evolutio

OPEAN CULTURE

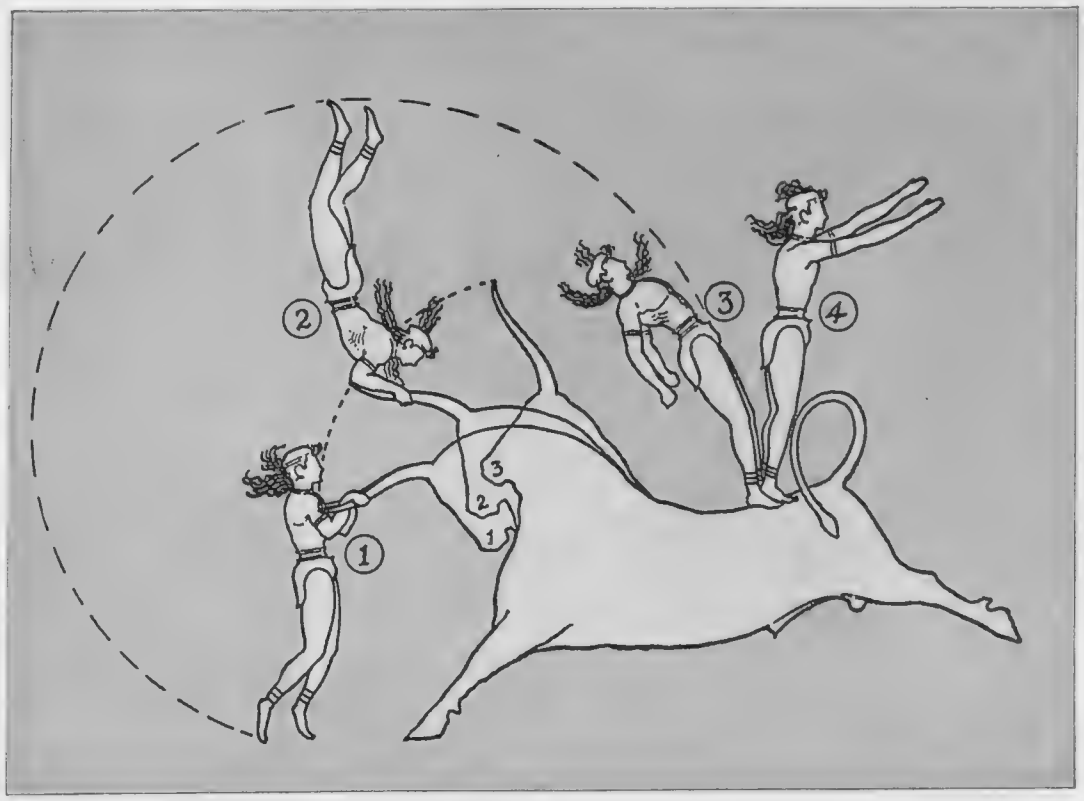
Recently Achieved at KNOSSOS in Earliest Centres of Civilization

party ante-dating even "the Glory that was Greece"

even to-day a symbol throughout the Levant of luxurious
to in the article on the following page

Minoan civilization, indulged in a sport to which the rigours
on the back of a charging bull

THE RECONSTRUCTED PALACE: A portion of the Hall of the Double Axes, showing the shields restored to their position on the frieze. The double-axe is a motif in much Cretan ornament



THE FOUR POSITIONS OF THE CRETAN *CHEF-D'ŒUVRE*: The horn of the charging bull was gripped and his impetus, combined with a spring, employed to achieve the "hand stand" position. The toreador (male or female) then landed on the bull's haunches in a standing position whence a somersault was performed in the air to reach the ground. The modern toreador states that this evolution cannot be performed

The CRADLE of EUROPEAN CULTURE

The Story of Thirty Years' Excavation at Knossos in Crete—the Island Ruled by Minos, where Theseus slew the Minotaur

(The Illustrations on all these Pages are by Courtesy of the Publishers)

There has just been published the third volume* in the series which sets forth the result of the labour begun in 1910 at Knossos in the island of Crete. It is now possible briefly to survey the results of one of the greatest undertakings in the history of archæology. This century has been rich in revelations. There has been the work of Mr. Leonard Woolley and his colleagues at Ur of the Chaldees. This has drawn much publicity probably owing to its affinity with early Biblical times. The opening up of the *Via dell' Abbondanza* at Pompeii has brought in a fresh store of treasures, and the Italian Government has also been well rewarded for its labours at Leptis Magna. But none of these excavations has been so arduous and at the same time so fruitful as those undertaken with such courage and determination by Sir Arthur Evans and his band of workers.

In contemplating these volumes one is troubled to find language, even had one the requisite scholarship, to express adequately the wonder and admiration evoked. Here, in the dim beginnings of history, from ground so arid and desolated by centuries of earthquakes, we are shown a civilization flourishing in the beauty of architecture, with a culture and traditions scarcely inferior to those of Greece herself, some sixteen centuries before the birth of Christ.

There has been laid to view, with reasonable reconstructions, a palace and a town by excavators working in a wholly unexplored territory. It has taken the patience and organization of thirty years to systematize the discoveries, to fill in the lacunæ as the evidence accumulated piece by piece, and finally to build up a comprehensive story of a lost race about which so little was known, and yet whose influence was very definitely felt on the civilizations of the mainland.

Not only was the ground plan of the Palace of the Kings traced out, a series of campaigns have placed us in the position of witnessing a reasonable reconstruction of that amazing edifice, with its upper and lower storeys, its light wells, its drainage and sanitary systems. What a thrill must have been felt in that moment when, through a blocked doorway, the paved surface suddenly began to go down, and proved to be the landing of a flight of twelve steps, which leads to flight after flight, the Grand Staircase itself.

It needed eight days of dangerous tunnelling, miner's work all of it, to reach a columnar court built to light the staircase. But greater wonders lay ahead. All the world has been thrilled by Carter's discovery of the Tomb of Tutankhamen, yet here is a discovery not less sensational and rich :

"The scientific skill and harmonious disposition displayed by the structures of this quarter, the felicitous compactness of their arrangement, centring, as it were, round the inner private staircase, represent a development of private domestic architecture for which we may look in vain for a parallel in Egypt or Chaldea or in any other Oriental country. In many of its aspects, indeed, it is more modern than anything that has come down to us from ancient Greece or Rome."

From the light court at the foot of the staircase, or the Hall of the Colonnades as it has been termed from its supporting columns, there opened two large halls, evidently reserved for receptions. The first and largest of these, known as the Hall of the Double Axes from the signs on its blocks, was triply divided by lines of doorways. Against the north wall was found the remains of a throne.

Not less inspiring must have been the discoveries of the earliest and later Propylæa. In the later Propylæum there was perhaps the most beautiful of all the revelations. There came to light, face upwards, two large pieces of painted stucco that proved to be the greater part of a life-sized figure of a youth bearing a cup. Two silver armlets encircled the upper part of his arm, and he was clad in the typical Minoan kilt, tightly gathered round his loins, with a tight-fitting girdle of spiral design.

"We have here before us, in fact, a sunburnt scion of the Mediterranean race . . . the colours were almost as fresh as when applied over two and a half millenniums before, and the impression made by this discovery at the time of finding remains uneffaceable There was something very impressive in this vision of brilliant youth and of male beauty, recalled after so long an interval to our upper air from what had been till yesterday a forgotten world. Even our untutored Cretan workmen felt the spell and fascination. They, indeed, regarded the discovery of such a painting in the bosom of the earth as nothing less than miraculous, and saw in it the 'ikon' of a saint.'

* *The Palace of Minos at Knossos.* By Sir Arthur Evans. Vol. I, £6 6s.; Vol. II, £7 7s.; Vol. III, £5 5s. (Macmillan and Co.).

Another stucco relief of almost equal beauty is that of the priest-king. One cannot convey in words any idea of the exquisite colouring of this work, as well as the beauty of the design. Here we have a male personage of sinewy and youthful figure, with dark black tresses and plumed headgear. The fall of the hair indicates an origin in early Libyan traditions. Round the neck hangs a collar of lilies. He is depicted leading by a cord some animal, but that animal has for ever disappeared through time, and the young king marches on in all the valour of his youth.

In the field through which he progresses, with his plumed lily crown, are exotic flowers and a six-winged butterfly, a memory of an artist who recalls the insects he has seen fluttering above the papyrus thickets of the Nile. The butterfly is here as a symbol of the re-awakening of the soul by divine grace after the short sleep of death.

How impressive in its magnificence must have been the stately portico of the Palace itself, and the mighty Viaduct, with its piers, by which the Great South road approached the bridge-head. They were great builders in those times with some knowledge of town planning. The existence of considerable trading might also be deduced, not only from the activity of the port itself, but from the fact that what was indubitably an "hotel," or "rest-house," stood on the slope overlooking the road. Here was luxury indeed. The wearied travellers from dynastic Egypt, tried by the sea-crossing, found in this caravanserai elaborate bathing accommodation, a spring chamber, an elegant little refectory, and decorations on the walls that we should regard as remarkable to-day.

Could anything be more lovely or delicate than the frieze of partridges from the pavilion of the hotel? Here we see Minoan decorative painting at its best. The birds are set in a wilderness of rocks. Possibly they are intended as an anticipatory assurance of the good cheer that waits the diner within, and it is significant that the hoopoe is included, a bird regarded throughout the Levant to this day as a special dainty.

Nothing is more fascinating in these volumes than the manner in which, from fragments of pottery and from friezes and small ornaments, the life of this lost people has been reconstructed. Even something of their political and religious systems has been deduced. We learn that they probably employed black troops. On one fresco a Minoan captain is seen leading the first of a negro troop at the run. The captain wears a black goat's-skin cap, with horns attached, and below his belt a short yellow tunic. The negro, who follows immediately behind, wears a similar uniform. His legs and body are black. The employment of these black auxiliaries is a significant historical fact. There was early intercourse between Crete and the lands beyond the Libyan Sea. In the use of black troops the Minoan lords were availing themselves of resources known to the Pharaohs. These black soldiers probably acted also as palace guards.

BEARING IN ITS CENTRE THE SYMBOL OF CIVIC DIGNITY: A Cretan vase from Pseira emblazoned with the double-axe

The Minoan officers were not very remote from our own. They stood in military fashion, with their heels together, according to these frescoes. Their hair was closely cropped, unlike the flowing curls of the civilians. They wore the kilt, in their right hands there is often a sword.

The last of these amazing volumes brings before us the third instalment of this great undertaking. It deals with the northern and eastern quarters. It presents the astonishing Temple fresco. And here we are touching the daily life of the people. We are amid the ladies in the grand stand who have attended the sports in the arena. Seated in rows, the more eminent appear to occupy boxes; the impression of a great crowd is conveyed by the most amazing kind of shorthand. And we are in a more graceful age.

And how gay these ladies are! They gossip, indulge in tittle-tattle, and society scandal, just as do the ladies of to-day at the opera. One of the ladies bends forward, with her right forearm half-raised, intent on what she hears, her companion sits with her body slightly thrown back, her hand raised in front of her face, quite shocked by this scandalous tale.

What did they go to see? A performance as astonishing as anything that history relates. The Minoan loved the bull. It runs through his art; it is in his religion. He lived on an island, cruelly used to earthquakes. Was it not a bull under the earth, heaving and groaning? He must be propitiated. So in the arena he provided the sport. There is nothing in the modern theatre or the Spanish bull-ring to equal the dexterity, the resource, and the thrill of the Cretan bull-tossing. They trained a race of cow-boys, or toreadors. Also they had women toreadors. But their task was very much more perilous and wonderful than that of the spoiled darlings of the Spanish bull-ring. They were acrobats who delighted in being tossed, and demonstrated their agility by doing somersaults on the animal's back.

The whole story is told in these "taureador frescoes." Besides the male performer of the usual ruddy hue, who is turning a back somersault above the bull, are two female "taureadors," distinguished by their white skin and ornamental attire. And here we approach a mystery. Modern toreadors say that the feats depicted by these male and female rivals are quite impossible. But the repetition on the frescoes leaves no doubt of the nature of their feat. They seized the horns of a charging bull and performed a back somersault. It would seem that a double somersault was performed also, over the horns of the animal on to its back, thence from its hindquarters on to the ground.

The first part of this acrobatic cycle, as thus conceived from the frescoes, seems to transcend the power and skill of mortal man. Certainly there is no one living who could perform this feat with a charging bull. Yet here are girls and youths most gaily and gracefully being tossed.

It is impossible in this brief space to convey any adequate impression of the magnitude and wonder of this work at Knossos or of the interest and beauty with which these volumes have been compiled. Scholarship has been united with meticulous artistry in the designs, drawings, and coloured plates that so profusely illustrate the text. The difficulties that had to be overcome, landslides, earthquakes, and the period of a great War, increase one's admiration at a task carried to such success.

Crete has suffered from nine specially destructive earthquakes in six-and-a-half centuries. These upheavals can be traced in the successive building and destruction of the palaces. Even Sir Arthur Evans experienced what the Minoans had contended with through the centuries. In the spring of 1926 he was largely occupied with tracing seismic action upon the ancient remains of Knossos, until a foreboding of a fresh convulsion became an obsession. Sure enough, on June 26, the shocks began. They caught him reading in his bed. The building heaved and rocked from side to side; objects were thrown about, and a pail of water was splashed nearly empty. The whole of the population, wailing, poured out of the city gates, and continued for weeks to camp in the open.

The Cretan Museum suffered considerable injury, and some of the treasures were destroyed. Such is Crete to-day. It is a miracle that after centuries of these visitations the patient toil of men should still be able to reconstruct from the broken fragments of palaces and houses sufficient data with which to build up anew an impressive picture of a remarkable civilization. In nothing is the indomitable mind of man shown to be more remarkable than in such tasks as these achieved at Knossos by Sir Arthur Evans and his noble band of workers.

C. R.

YOUTH — and the SNOW

A Special Series of Pictures Exclusive to "The Sphere"

CHILDREN OF THE LONG SHOE AND THE SHORT: Miss Betty Butler, aged ten, and her sister Carol, aged four and a half, are ardent ski-runners, while their small brother, David, aged only three, has hitherto confined his activities to skating—but has been promised skis later on. A picture from Scheidegg

THE FIRST DAY OUT: Master Guy Gossage receives his first lesson in ski-ing from his mother, the wife of Lieutenant-Commander Gossage, R.N., an expert ski-runner

A TRIO: The three children of Colonel and Mrs. Norman England at Wengen. The eldest, Michael, aged seven, is adjusting the bindings for Norma, aged three, while on the left is Angela, aged five

AN 8 · AT 7! Miss Cupid Lee-Roberts, who has already at the ripe age of seven achieved a reputation as a figure skater, executes a figure eight on the rink at Wengen

FOLLOWING IN SISTER'S FOOTSTEPS: Miss Cupid Lee Roberts, on the ice at Wengen, lends a steadying hand to her sister Hazel, who at the age of five, is just beginning to feel her skates

A BIG MOUNTAIN AND A SMALL BOY: Master Michael England, aged seven, is a skilled devotee of the ski. He is seen above at Scheidegg with the Wetterhorn in the background

In view of the maxim that, to achieve success at sports one must start young, Britain's future in the Alps should be a bright one. Enthusiastic parents are taking children on their winter holidays in increasing numbers, for winter sports need learning even more than summer sports —and the children themselves obtain benefit and enjoyment.

LADY DRUMMOND-HAY writes on WORLD AFFAIRS

An Intimate Causerie on Matters of International Import

A LADY LINDY OF JAPAN: Miss Kaneko Kitamura, a famous journalist, has taken up aviation at the flying school at Tachikawa, a suburb of Tokyo. She hopes to make the first solo flight to Europe, using a Japanese 'plane. Miss Kitamura represented her country at the International Woman's Conference in Berlin last year

WELCOME SOVIET SOFTNESS.—"Red Russia is revolutionizing the fate of dumb animals," Professor Frederick Hobday, C.M.G., told me the other day in London. "Under the Czarist regime there were but four veterinary colleges. Now there are fourteen, as well as twenty-four large experimental veterinary institutes, sixty-eight smaller laboratories in various out-stations as observational posts for research work, 6,000 qualified veterinarians, whose numbers will be doubled as soon as possible from the ranks of 6,000 students, of whom 2,400 are women."

Professor Hobday, Principal and Dean of the Royal Veterinary College, London, returned from Russia before Christmas, following a voyage of exhaustive investigation into this little-considered phase of Soviet activity. He claims to be amazed, and full of admiration at the humanity of the Soviet Government towards the four-footed, furred or feathered population.

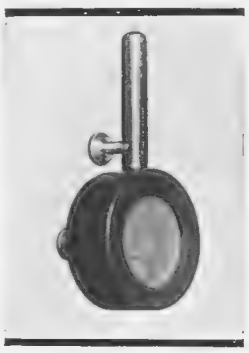
"The horses of Moscow and Leningrad looked well. I must have seen literally thousands of horses, and only saw one lame. I saw no skin trouble, no sores, and the horses were in excellent working condition."

This he attributed to the activity of the city veterinary hospitals, of which Moscow alone has nine. The Institute of Helminthology directed by Dr. Skrjabin, is said to be the only one of its kind. Wherever the professor travelled in Russia, he expressed surprise at the extent of State support and organization of veterinary work. The workers themselves, highly-trained as Professor Hobday says he found them to be, are anything but generously remunerated for their devotion, according to Dr. Henry Fox, of the Imperial Bureau of Animal Health, who is also a graduate of Kharhov University. Quoting from the "Demand and Offer of Labour" columns of the Soviet veterinary journal *Vestnik Sovremennoy Veterinarii*, Dr. Fox discussing a lecture by Professor Hobday on his Russian experiences, pointed out that a fully qualified veterinary-surgeon and scientist in Russia can earn anything from £11 11s. to £38 a month, while a "feldsher," or second-grade surgeon gets £5 5s. to £9 9s a month, worth in fact, no more than one quarter of the sum in question. For according to the admission of the Soviet economist papers, the purchasing power of the rouble has decreased to about 25 per cent of its face value, owing to the unprecedented rise in the price of living.

"It only confirms my belief that the Soviet Russian is a sincere animal-lover," the professor smiled in conclusion.

A BRIDLE FOR THE SUN.—The fantastic vision of the sun as a titanic central dynamo for the world, furnishing mankind with electric light and power, as well as being the source of all life, is opened with the discovery by Dr. Bruno Lange, a young German scientist, of the possibility of transforming sunlight into electricity. It envisages the potentialities of partly replacing coal and crude oils with sunlight electrical energy and power, which in turn might bring about nothing short of a revolution in our industrial system. The process, demonstrated by the very successful laboratory experiments in the Kaiser Wilhelm Institute of Scientific Research in Berlin, is astonishingly simple.

Dr. Lange, aged twenty-nine, who, with his laughing brown eyes, mane of dark hair, and Schubertesque side-whiskers, looks like an overgrown football player, explained to me in Berlin the other day his discovery which may lead to the harnessing of the inexhaustible sun's rays to the service of man, for locomotion, light and heat.



ENERGY FROM THE SUN: The foto-cell discovered by Dr. Lange which may revolutionize industry

"The discovery was more or less accidental while I was engaged in some silicated research work," Dr. Lange modestly told me." The process is quite simple, and in the laboratory experiments, no expensive or complicated apparatus has been used. That light is also of an electromagnetic nature, was already established by Hertz and Maxwell. With that as a basis, I experimented for three years in passing light through thin layers of metals, or metallic compounds.

"Quite by accident one evening I passed light through some cuprous oxide, and discovered that it was immediately transformed into electricity. Following this up in protracted experiments, I found that light, passed through a copper disc covered with a thin layer of cuprous oxide, released the electrons in one direction, thereby creating the 'electrical circle,' and a steady stream of electricity. I constructed a small cuprous oxide 'foto cell' about two and a half inches in diameter. To this are attached two wires, the positive and negative poles. The other ends of the wire are attached to a one-half-volt motor. That motor I have run for a week on sunlight passed through that disc. It will even run on diffused light—that is, when the sun's rays do not directly strike the disc. An attached voltometer registers the varying degrees of electricity from the different intensities of light."

"Thus, if the roofs of our homes were made of immense cuprous oxide plates, every house could have its own electric plant for light and power, and be independent of the power companies which use vast quantities of coal, or oil to run the dynamos?" I suggested.

"Theoretically that vision is no mirage. But how far our calculations will work out practically on a large scale I cannot say yet," answered the boyish scientist. He called attention to the fact that between Edison's first discovery of the incandescent electric bulb and the production of a practical working electric light, more than two years of intensified research had elapsed.

Dr. Lange admitted that even if only a part of the vista opened by his discovery should come true in time, the vast sun-baked desert stretches of Australia and the Sahara could be turned into veritable gardens by irrigation pumps worked by intense sunlight-electricity in those regions.

Dr. Bruno Lange, who believes that he has discovered this way of tapping the sun as an inexhaustible source of electrical energy and power, is an orphan. To get the money for his education he worked on farms and in factories. "I am not easily discouraged," he remarked to me, "I know what privations and hard work can mean—and what patience can win."

LADY HOUSTON.—That British women are as keenly interested in Britain's prestige in the air as are our men, and are doing their share in their own way, to advance aviation, has again been proven by Lady Houston.

British prestige demands that we defend a third and last time our twice-won Schneider Trophy, the greatest of air trophies. The Government decided that for reasons of rigid economy, Britain could not enter the Schneider Cup Race. Amidst Empire-wide disappointment and dissent from the Government's decision, Lady Houston came forward with the offer to guarantee the £100,000 cost for Britain to defend the Trophy. It is a magnificent offer. It has cheered the heart of every Briton. If we win the Schneider Cup a third time it remains permanently with Britain. And Britain will owe it to a woman.

British women have done more than the women of any other country in the world towards "taking fear out of the air" and for the cause of aviation. They have not always met with that encouragement from the masculine element in British aviation that their enthusiasm and efforts merited. Certain of our aviation editors and writers seem to delight in jibing and jeering at our women pilots and their efforts. Their futile tilting at windmills will now appear more unchivalrous than ever towards those who are trying to "do their bit."

ITALY'S SOLDIER POET.—Prince Monte Nevoso — Prince Snowy Mountain — otherwise Gabriel d'Annunzio, Italy's eccentric soldier-aviator-poet hero, has ordered his mausoleum, I hear from Rome. Nearing three score years and ten, infirm, often sad and melancholy, the fiery lover of Eleonora Duse, who glorified love and patriotism above all else in the world, has commissioned Renato Brozzi, famous sculptor, to build his death house. D'Annunzio himself has designed it in the ancient Roman style with massive pillars, to stand in the grounds of his Villa Vittoriale, near Gardone, a beautiful spot overlooking picturesque Lake Garda.

"Not to sleep" is the poet's maxim. True to that, he works mostly at night, when alone, and all is still. Manlio Barilli, an intimate friend of the hero of Fiume, gives some details of the life of d'Annunzio in a book which he has just published.

The Prince of the Snowy Mountain, the title given him by the King of Italy, works twelve or more hours a day, despite his advanced age. Excepting his valet, Landi, no one it is asserted, has ever entered d'Annunzio's study where he writes. He retires to bed about five in the morning. Before twelve he is up again. A walk in his park, a short rest on a marble bench placed between melancholy cypresses and exotic magnolias inspire his thoughts. He dines in a room called the "Cenacolo," of which the primitive simplicity recalls a refectory in a monastery. Grotesque statues of Chinese and Indian gods decorate the severe walls. Above them towers the lean figure of St. Francis. When the Prince of the Snowy Mountain has guests, an exquisite cuisine and delicious wines are served. Alone, he eats as simply as the Franciscans of which Order he is a lay brother.

He performs his religious devotions in a chapel where silence is jealously guarded. A mystical twilight fills the beautiful room. Rare Oriental rugs on the floor, and heavy velvet curtains at door and windows deaden every noise. The stillness is broken only by the sound of drops of water falling rhythmically with monotonous regularity on a metal plate. This is, to the poet, the symbol of the eternal harmony of the universe.

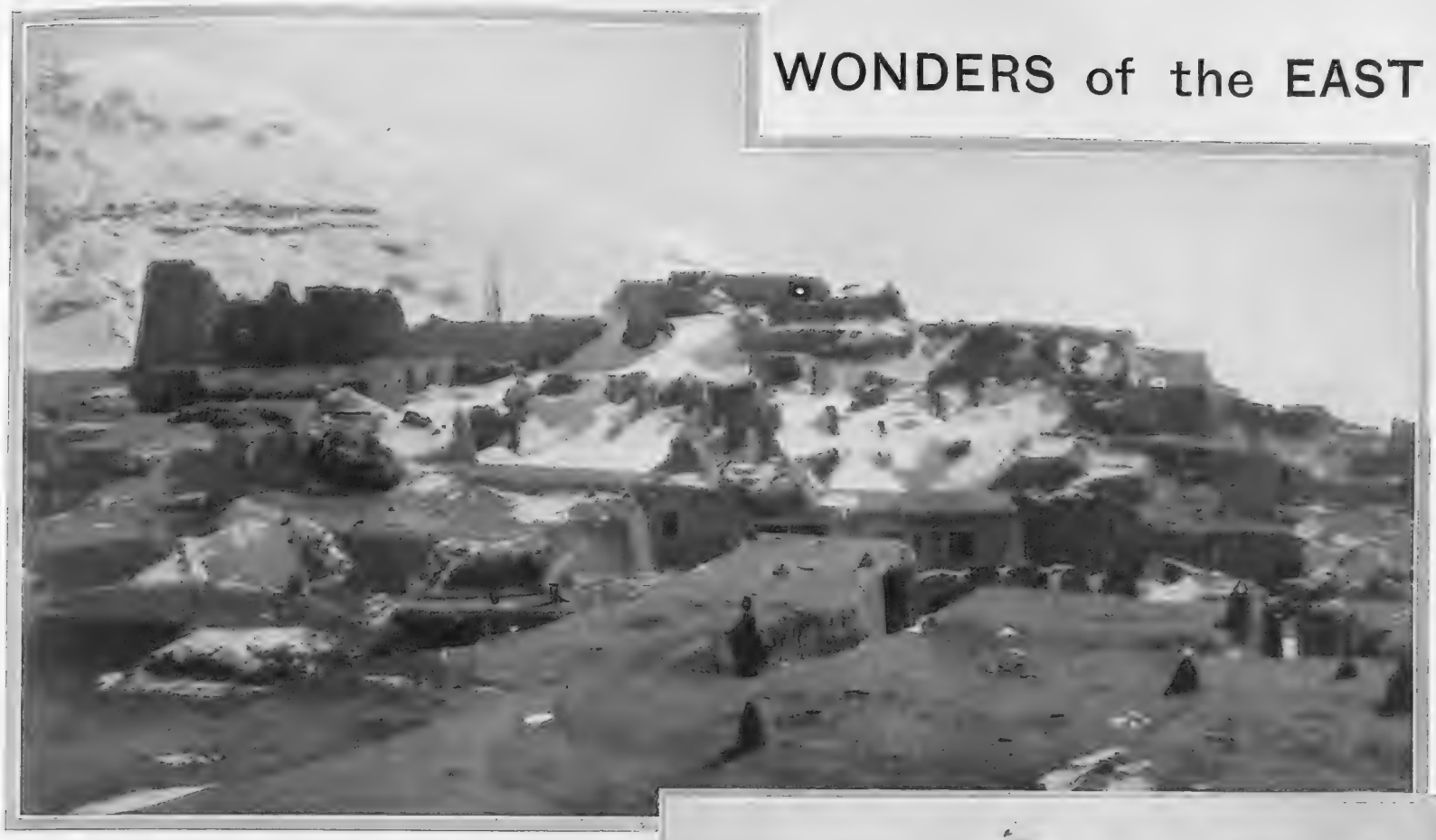
D'Annunzio has all but become a recluse. He is seldom seen any more, On September 27 of every year, he has a special mass celebrated in the church in Gardone in memory of the fallen Italian soldiers whom he led at Fiume immediately after the close of the world war, when he refused to obey the orders of the Allies and surrender Fiume to Jugo-slavia.

In the centre of the black-draped church stands a large catafalque surrounded by palms, laurel, rare flowers, and covered by a starry flag—the "Quarnero"—symbol of a poet-soldier's short-lived temporal sovereignty. String orchestras play softly "Magic of Good Friday" from Parsifal, "Ave Maria," and other music of his selection. D'Annunzio approaches the catafalque, kisses the hem of the flag, retires and disappears.

D'Annunzio, one of the most romantic figures of our times. in his youth eloped with a seventeen-year-old Princess, daughter of a distinguished Italian family. She was stripped of her title. Long years afterwards, she again became a Princess through her husband, and now lives in Paris.

ELECTRICAL MILKING: One of the mechanical innovations inaugurated by the great stock-breeding farms of Soviet Russia

WONDERS of the EAST



A RUINED HAVEN: The village of Aveh, N.W. Persia, near the mountain Pass of the same name. Despite their ruinous and dilapidated aspect, villages of this type are welcome resting places to the camel caravans trekking over the Persian Steppes

GOD'S HOUSE AND MAN'S: A village mosque turned into a dormitory for the workers laying the first water-pipe lines to Bokhara

MULBEKH ABBEY: A strange rock-built structure on the caravan route over the Himalayas from Kashmir to Chinese Turkestan, along the Indus Valley, and between Khargil, the famous Oasis of Apricots, and Lamayuru, before reaching Leh, the capital of Ladakh or Little Tibet

One descends into a crater-like valley, with one tiny field in a wilderness of stones, and high over head on the topmost peak of a mass of bizarre shaped crags, is a white walled building with red-framed windows which stare fixedly into the valley. No life is visible. Like a castle of fairy tales looks Mulbekh, more like imagination than reality. The way up to it involves a climb of many hours on a zigzag path worn by the feet of the lama on the face of the rock, till near the top it suddenly turns right just as one thinks it leads through a tunnel-like opening and passes on to the narrow plateau of the Abbey, set on the main camel-caravan route between Kashmir and Chinese Turkestan before reaching the capital of Little Tibet. Far below a few dwellings are perched on outstanding crags, with here and there tiny hollows of cultivated soil. In the valley a few clay houses are all the suggestion of life to be seen in this strange lost jumble of conglomerate stone.

South and Eastwards towards the Persian Gulf and Baluchistan, the Steppes of Persia blister under a merciless sun. Camel caravans, the only form of transport, pass up and down and across the sands, looking longingly to the oasis where water will be obtained. Sometimes these caravans continue North into the mountains where the conditions are totally different, and the rare villages are havens of protection from the cold which, in winter spreads down the mountain sides and envelops the poor homes of the natives tucked away in the foothills. An icy wind sweeps over the mighty Elbruz Massif from which the Demavand, capped with perpetual snow, raises its head 21,000 feet above sea level. Snow fills the passes and the villages are gripped in a murderous winter cold. To the caravan people coming over the icy passes of the North-West mountains the isolated villages, tumble down and forlorn, are as welcome as the oasis is in the thirsty Southern Steppes. In the rest house the animals are fed, meals are cooked and eaten, and the men thaw themselves out before the fire, exchange news, and sleep.

C

A PRECARIOUS PATH ON A SAND DUNE RIDGE: Camels can move only slowly over the snow-covered sand dunes, for one false step involves a fall, owing to the high-piled burdens on the beasts' back which sway to and fro; the bell of the leader rings dully over the numberless dune edges

HEAVY LADEN: A camel on the narrow snow-covered route, followed in summer in sultry heat, in winter in deathly cold

THE SIGN-POST IN THE SNOW-COVERED DESERT: The natives, who camp when they go out fo

The Desert Winter. It sounds paradoxical, for most men visualize the desert as a sandy waste over which the sun pours its most pitiless rays steadily and relentlessly year in year out; where all vegetation has long since withered away, and every means of maintaining life burnt up. It is a different story in the Takla Makan desert, that remorseless advance guard of the all-devouring Gobi which spreads over the centre of the Asiatic Continent, still hungry swallower of ancient civilizations. As a result of its geographical position the Takla Makan experiences typical Continental climate of two wide extremes; grilling heat in summer, arctic cold in winter. The temperature here falls sometimes to thirty degrees centigrade below freezing point. The world about is as deadly still as an Arctic ice plain. Snow rarely falls, for inner Asia is protected from the moisture-bearing clouds by ranges of formidable mountains, but when the white sheet does spread over the beautifully formed dunes and plains, the sandy waste offers rare and phantasmal scenes. The natives fear the desert before everything, for here dwell the spirits which mock the voyager and, with

BURNING SAND DUNES COVERED WITH SNOW

First Series of Pictures Illustrating the Takla Makan Desert in its Winter Garb

BREAKING CAMP IN THE SNOW-COVERED TAKLA MAKAN: The party is always happy when everything is loaded and the camping place is left behind—for the march brings warmth to limbs nigh frozen in the icy air of the night

SWALLOWED BY THE DESERT: The last traces of a river which must yield to the all-conquering sand dunes. Its last relics are puddles and marshy spots which, in the winter temperature of 30 degrees below zero, centigrade, freeze completely

are ignorant of the use of the compass, use signs like this to guide them back to foraging for wood

their voices and ringing bells, entice him from the path to destruction. It is a real fear. Still for the traveller well-equipped with wood, tents, water, and provisions, marching over the unending winter landscape is an experience, the attractions of which are not to be denied. Maiden-like the desert presents itself—unruffled, untouched.

AN ILLUSION OF THE DESERT: On a bad winter day, all marks disappear in the desert and from a distance it appears as if the caravan were marching into the skies. This is one of the many phantasmal effects experienced in the Takla Makan

THE AVALANCHE'S LESSON:

The tragedy on the Aletsch glacier in which Mrs. Furnivall, Miss Furnivall, and Miss Galloway lost their lives last month has occasioned great concern among the ski-ers of the world

By CAPTAIN E. P. RICHARDS

The author of the accompanying article, who was specially commissioned by "The Sphere" to write on the subject of the perils of the avalanche, holds a new record—"The first ski ascent of Dom (the third highest mountain in Europe, 14,942 ft.), under winter conditions, 1928. Captain Richards, who is a member of both the Swiss Alpine Club and the Ski Club of Great Britain, discusses the tragedy of the Concordia-Aletsch avalanche, and compares it with the accident of February 1928. He shows that the contributing causes bear a remarkable and sinister likeness: and points out that one must not rush to hasty conclusions before the Swiss inquiry

The Great Aletsch Glacier and the Concordia Hut are very well known indeed to the majority of British and other Alpine ski-ers in Europe. The Concordia Hut is now really almost an hotel. There is sleeping accommodation—at a pinch—for sixty people on mattresses on the floor. Normally a considerable store of emergency food is kept there, and can be had by anyone who is in want, the price necessarily being high. It is quite a common occurrence for parties to be weather-bound for a week or more with no privation—especially in such large, well-used huts as the Concordia. In the depth of winter, to leave the hut so soon as there was an apparent stop in a severe Alpine snowstorm in order to go miles down the glacier (and off it left, over the steep Eggishorn ridge), for the inhabited Rhone Valley—is taking considerable risk from avalanches and one expects a compelling reason for doing so. The sole other way for the party to food and humanity was to return whence they had come; to ascend five miles up this mighty Aletsch Glacier to the Jungfraujoch, where the mountain railway and hotel are tunnelled inside the rock, at 11,400 ft. That meant five miles of exhausting toil uphill over perhaps two yards or more depth of softest snow (hiding and weakly bridging the rare but possible crevasses). It meant pushing the sinking, knee-deep ski uphill, northwards, in the face of an arctic blizzard, charged thick with flying dry snow-dust, reducing visibility to a few yards and the pace to a suffering crawl. And, further, in mist and smother, it was once even found impossible to find the objective at Jungfraujoch!

Primary reasons that can compel or urge departure under grave risk from an Alpine refuge-hut are lack of food, or fuel (even if only to produce water from snow), increase of dangers through delay, desire to allay anxiety of one's own or a guide's relatives, overstaying of leave, omission of vital engagements, etc.—and of almost equal importance, we cannot blink expense—a guide costs 25 francs a day plus his food and drink (but we must remember they are often unemployed in bad weather and during the two off seasons), and the hut charges are necessarily high—these and the big cost of rescue parties are genuine factors. There is also excessive boredom from being cooped up in the hut, and perhaps, not infrequently, the lighthearted disregard of risk—*l'amour de la vie dangereuse*—and the intense desire to complete one's programme.

The comparative nearness of the Jungfrau Alpine railway terminus and hotel, with ample supplies of the finest food (necessarily at high prices) may in the last few years have influenced storage at Concordia Hut I have, once, suffered in a high Alpine hut through lack of fuel, and we were unable to utilize the hut's emergency store of dried, highly nutritious soups. But one cannot imagine so important a hut as Concordia being in like case—yet it might have been.

Of course, in their rucksacks, parties will usually take several days' food; it is so very much cheaper, and one has chosen what one likes. To take five or six days' supply is not at all uncommon—it depends on the programme.

Had shortage of food or fuel been the primary urge for leaving the hut, one might think that the guides could have fought their way up to Jungfraujoch and back again (much more easily) with sufficient emergency supplies. But we were not there.

Several important reasons acting together can cause an enforced departure. But in the case of the Concordia Hut there can be a quite other reason assisting; one that led, certainly greatly contributed, to cause an almost exactly similar tragedy below Concordia so recently as February 14, 1928. The same reason—a strange misleading lull, an apparently complete cessation of the storm, appears on evidence at hand to have been a main cause of the present tragedy. The party were weatherbound from Thursday morning, January 22 until (on 28th) "Wednesday morning broke rather finer," and they set off at eight down the glacier, but at ten o'clock it began to snow. Then "fog" (in reality "cloud") came on, so that by 3 p.m. they were trying to make their way by compass and map. They had skied four miles beyond the the side gap at Marjelen-Eggishorn, until at nine miles below the hut they groped their way to opposite the point where the Aletsch Forest begins to clothe the steep mountain side of the glacier trough. They had descended off the high convex ice, and were finding their way up the slope to gain the safety of the forest, when, just outside the trees, the raging snow-torrent rushed down the open, tree-less slope, and caught them. *Had they not been deceived by that fatal lull*, had the storm indeed been ceasing *they clearly would have seen the danger of that slope*, and, in good daylight, safely have gained the trees from lower down.

The 1928 party was composed of one first-class Swiss guide (who was completely exonerated by the survivors), two very able and expert men skiers, and a third, more youthful but a good skier. These three were of British nationality. The party left Jungfraujoch Station at 9.15 a.m. to climb the Mönch. The weather was bad and barometer low, the sky overcast, with high wind. They attempted the climb, found it impossible, came down again at 11.30, and then ran down the Aletsch Glacier to the Concordia Hut by 2.30 p.m.

A violent snowstorm raged on the 11th and 12th, but 13th was better. On the 14th by noon, there was blue overhead at Concordia, and although the sky was black northwards, the glacier was visible downhill to beyond the Eggishorn, *i.e.*, for six miles. They then decided to depart for Brigue. They left the hut at 1 p.m. and ran down the glacier with North wind behind them to the left-hand gap in the glacier trough at Marjelen See. There they saw lower down the glacier towards Riederfurka, cloud or mist rising. They left the glacier, went through the gap, and began to climb up the ridge, to follow along its sides toward Bettmeralp, towards Riederfurka. In the gap, while making up to reach the back side of the ridge, about 4 p.m. "fog" caught them, the wind recommenced, and it began to snow.

Soon the party was in grave difficulties as to direction, and recognized that serious avalanche conditions threatened and surrounded them. They had felt their way over the ridge and were going down when, at 4.30 an avalanche roared down on them. The guide and one expert skier were unhurt. These quickly found and began to dig out the other first-class skier (whose knee was badly hurt), but searched in vain for the youngest man (who lay dead under a drift of snow). Darkness came on. It was now impossible to move in the dark and storm. There was great danger of another avalanche. They dug a hole in the snow below a rock. They endured a horrible vigil there in the dark and the snowstorm for fifteen hours until 8.30 a.m., when they began to move slowly. At 1.30 p.m. they reached the closed and isolated Eggishorn Hotel, and remained there until the third day, the 16th. Then, dragging the injured man on an improvised toboggan, they at last got to the Alpine village of Fiesch.

The parallel of these two tragedies in times, weather, and results, is remarkably close, and now, to bring home the point of this recital, we must quote from the excellent accounts written for the 1928 Year Book of the Ski Club of Great Britain and the Alpine Ski Club by the two senior survivors:

"I have learnt one thing of great interest in the course of conversation with H. Rubi of Wengen, who spent most of his life as a boy (helping the hut-keeper during the summer and winter seasons. Many hut keepers are also qualified as guides, and nearly all are great observers of weather conditions) at the Concordia Hut. It is, apparently, a common occurrence for the weather to clear at the Concordia and for the sun and blue sky to appear, while the storm is still raging at the Jungfraujoch and in the valleys and mountains near the Rhone Valley. *A knowledge of this fact may save others from making the same mistake as we did.*" (The italics are mine).

". . . the guide was in no way to blame for what occurred. We were an experienced party, and had made it clear at the commencement of the expedition that we intended to make our own plans and that he was merely there as an additional safeguard. His conduct was exemplary, and had it not been for his knowledge and his sense of direction in fog we do not think that any of us would have come out alive."

One expects the main cause for departure on January 28 last week was a repetition of that misleading blue disc of clear sky over Concordia in February, 1928, in midst of the storm. It is well that this opportunity be taken to make Rubi's statement become better known.

The evidence to hand shows that the guides and the party behaved finely, and the disaster will, we hope, be classed as an Act of God, reasonable risk in a fine sport, and bad luck.

But this is certainly a moment for drawing attention to the causes of avalanche accidents that cannot be so classed. A proportion of British and other ski-ers, who have not had any personal experience of avalanches, run into quite unnecessary dangers because they have not taken the trouble to learn by observation or even to read up the most elementary rules of snow-craft—as, for example, Arnold Lunn's *Alpine Ski-ing at all Heights*, a most admirable pocket manual. They go lightly into avalanche risks, little knowing the suddenness, the horror, and the utterly astounding power and fury of the avalanche. For every skiers' death each year in the Alps by falls, falling stones, crevasse, breakage of ropes, exposure and benighting, all added together, the avalanche takes about two, *i.e.*, some two thirds of the fatal accidents to skiers are caused by avalanche.

Those who have not seen and escaped take the needless risks in vague ignorance of the kind of death that is so near them.

Let us quote from the 1928 Year Book, page 430, the vivid remarks of the injured but rescued man, in the 1928 Concordia tragedy:—

". . . . my attention was attracted by a louder noise to one of the most terrible sights imaginable. A small cornice above us had broken away carrying with it a steep snowfield lying beneath it. The impression produced was as if a huge snow wall had reared itself up and then swept down, carrying all before it."

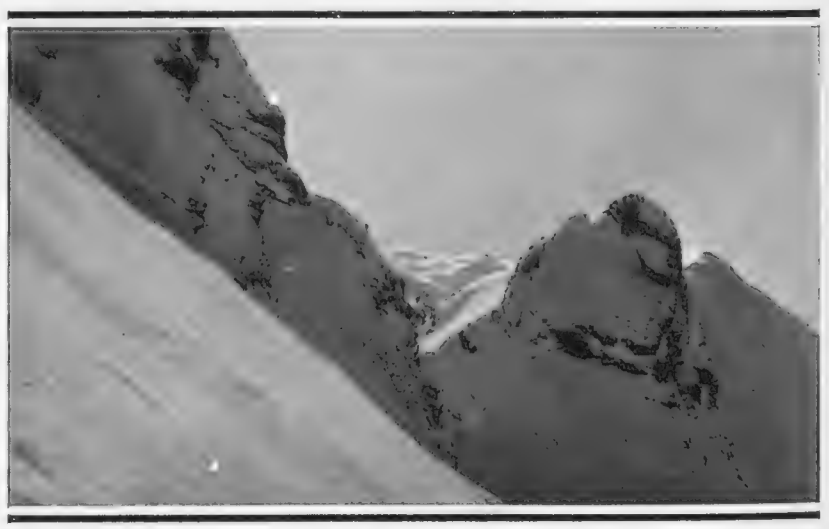
"There was nothing to be done. The bad light forbade any attempt to run straight downhill, and there was no shelter for which to spring. Instinctively I jumped round, vaguely feeling that the impact of the avalanche would be less painful on my back. I bent down to remove my ski, and my hand had hardly touched the Beetschen clip, when I was bowled head over heels by a tremendous blow. My recollections of the next few minutes are of the haziest.

"I remember the roar as I went down, and the snow covering my mouth like a blanket. I remember being tumbled about in the darkness, and the thought that I could not last much longer. I remember desperate attempts to breathe . . . efforts to remove snow from nose and mouth with my fingers . . . and then the stillness and darkness, and the horror of being crushed and the despairing sense of helplessness. And then the frantic scratching at this vault of darkness and the roof that suddenly opened on to the light and then great sobs for breath."

The guide saw his hand. He took 20 minutes to extricate him out of the packed snow.

Surely, every skier should learn when and where to expect avalanches.

But, considering the very great number of skiers and the high percentage of novices each year, one can state gladly that the surprisingly small number of avalanche accidents to British skiers does them very great credit. To think that ski-ing—including ski-mountaineering, racing and jumping is a more dangerous sport than, say, hunting, steeplechasing, motor-racing, flying or foot-mountaineering, would be a mistake. There is also another point. Reading as I do every month the Swiss Alpine Club records of *Accidents mortels*, I am compelled to judge that there seems a far greater call for education in technique among the foot-mountaineers than for the skiers, for it is the former who provide the majority of Alpine deaths—nearly all of young persons.



AN AVALANCHE SLOPE: Near top of the highest snow-slopes on The Spillgerten, Bernese Oberland. These show the appearance after passage of an avalanche. The deep layer of new snow fell on an older, hard, iced layer. It adhered temporarily for a day or two. Then suddenly began to slide, viz., to avalanche. This was the kind that fell on Mr. Furnivall's party

ANIMALS *in* PERSIAN ART

The Treatment of Horse and Camel Revealed in the Current Exhibition at Burlington House

"DROMEDARY WITH ITS KEEPER": A miniature 6 in. by 4½ in. lent by Armenag Bey Sakisian, Paris. This miniature, dating from the latter half of the fifteenth century, is inscribed in calligraphy "Painted by Bihzad. The excellent work of the Master Bihzad"

SEVENTEENTH CENTURY: A drawing, with touches of colour, of a camel and a turbaned man. It is signed "Mu'in Musawwir, designed by the late Ustad Bihzad." It is lent by M. H. Rabino of Cairo

A SATIRIC SCENE: A drawing 4½ in. by 3 in., ascribed to Sultan Muhammad (early sixteenth century) of a young man, mounted, and a suppliant. It is lent by Armenag Bey Sakisian, Paris

AN EXHIBIT FROM NEW YORK: A miniature from a Shah-nama showing Rustum and Isfandiyar fighting. This vivid picture is lent by Mr. E. Wells of New York

SIXTEENTH CENTURY: A miniature of a camel, with a highly ornamented saddle, and its keeper. It is inscribed: "Painted and written by Shaikh Muhammad, 964 (=1556)"

HORSE AND GROOM: A late sixteenth century drawing in colour, signed "Riza," of a horse hobbled with a chain. It is 7 in. × 8 in. in size and is lent by M. Claude Anet of Paris. The miniature on left is lent by Armenag Bey Sakisian, also of Paris

A MYSTERY OF NORTH AND SOUTH: The Blue Goose

AN ORNITHOLOGICAL ENIGMA: Further Information Concerning the Blue Goose

The mystery surrounding the life of the Blue Goose was very largely cleared up in THE SPHERE* some fifteen months ago when its Ottowa correspondent first told the bird world of the end of a great quest.

For 200 years, naturalists had been attempting to find the summer breeding ground of this beautiful bird, but for that great length of time, natural conditions had prevented any solution. It was only in the month of June 1929, that the first nests and eggs of the Blue Goose were discovered on the polar tundra which surrounds Bowman Bay, Baffin Land.

Half this handsome bird's life—that spent in Louisiana near the banks of the Mississippi—had been well-known, but what he did when he winged his way northward at the first signs of the coming of spring had never been solved.

All bird lovers will therefore welcome the monograph on the Blue Goose which has just been issued by the Canadian Department of the Interior. This little volume, with its charming coloured frontispiece showing Blue Geese on the breeding ground near Bowman Bay, with some of their fluffy young around them, contains a great amount of additional detail to that which "The Sphere" was enabled to publish. The duration of the northward flight, and the methods of flying—the habits of the birds during the breeding period and their friendly ways with their neighbours, are all told in this delightful monograph, excerpts from which are given here.

First as to the flight — the Blue Goose avails itself of about eleven weeks to make the 3,000-mile flight in the spring from Louisiana to the breeding range—that is, from about mid-March to June 5 to 15. This presupposes protracted loitering at points along the migration route, or routes, to the Arctic. If the Blue Goose so chose, it could easily make the entire flight in two weeks, or a little more; in other words it could remain in Louisiana until May 20 and be on the breeding ground in Baffin Island at the usual time of arrival. In the domestic economy of the species, however, it seems necessary to make the flight slowly and to recuperate largely at certain localities *en route*.

It appears that the last lap of the flight within the Arctic zone, north of Richmond Gulf, is disposed of in a relatively short time. The interesting point comes to mind that despite all the delay imposed in the lengthy interval of passage, the Blue Goose has undergone a relatively insignificant amount of observation within the confines of settlement on its way north and south. Probably it escapes attention by flying over at great altitudes. Yet, the question may be asked, where do the enormous numbers of Blue Geese go, feed, and loiter, during migration between Louisiana and James Bay, where they are again first noted regularly *en masse*? The answer at present is: it is a mystery; we do not know. . . . The fall migration of the Blue Goose from the breeding range begins some time during the first half of September.

The Blue Goose nesting area, as known at present, occupies a comparatively narrow strip of low coastal plain on the eastern shore of Bowman Bay, Foxe Basin. This ground comprises a portion of the great western tundra of Baffin Island, which extends westward from Nettilling Lake to Foxe Basin, and from the Putnam highland on the south, well beyond the Koukdjuak River to latitude 67° 15′ N. It is underlain by Ordovician limestone and shale. The estimated area of this plain approximates 5,500 square miles. So slightly elevated above sea level is the land immediately adjoining Foxe Basin that it becomes inundated over wide areas with the recurrence of the "spring tides." The recession of the tide is also so extensive that during the period of low water the sea is quite invisible from the coast. Here foul-smelling, slimy mud flats stretch far inland, a repellent zone of utter desolation. . . .

During the spring floods thousands of acres of the surroundig tundra are completely inundated. Rivers, streams, and pools all temporarily lose their individual identity in the great expanse of water which extends in places as far as the eye can see. This is caused by the Eswituk ridge which dams and backs up the flood waters over large areas to the eastward. A rise of water of but a few inches is sufficient in many areas along the Blue Goose River to flood miles of the adjacent lowlands This is accomplished within an interval of a few hours. Consequently in the spring the region undergoes swift and apparently miraculous transformations in a brief period of time. Except for purposes of feeding, before and after periods of overflow, the Blue Goose shuns these areas subject to flood.

The entire season in the Blue Goose territory up to the time of our departure on July 24, was the bleakest, coldest, gloomiest, and most inclement one that I had ever experienced. As in May and June, the prevailing winds in July were in general north-westerly, sweeping in from the vast ice-fields of Foxe basin, they were invariably raw and cold, and usually accompanied by heavy cloud wrack, fog, and rain. The climate of the region is consequently severe. Up to July 24, twelve days were totally overcast, nine were partially clouded, only two clear.

These facts, I believe, present a fair description of the spring and summer conditions in the haunts of the Blue Goose. Notwithstanding the foulness of the climate, the region supports the largest population of breeding land-birds that I have seen anywhere in the eastern Canadian Arctic.

Though four eggs to the nest was the maximum number observed, later in the season a pair of adult blue geese was seen with five downy young, which shows that sets of five eggs are, at least, occasionally laid. This is probably the maximum number. Of the eleven sets of Blue Goose eggs collected, four consist of four eggs, three of three eggs, and four of two eggs each, making an average therefore of three eggs to the set. Several nests of the Lesser Snow Goose, also observed here, contained from one to five eggs, while sets of the Hutchin's Goose were found to vary in number of eggs from three to six.

The eggs of the Blue Goose when freshly laid are white, or very pale creamy-white; after a time they become deeply stained in the nest to an ashy-yellow or buff colour. Most of this discoloration readily washes off with warm water. The shell is thick and finely granulated, with a slight sheen or lustre. None of the eggs collected and observed have the "slight bluish cast" mentioned by the Hon. R. M. Barnes.

Actions of individuals about the nest varied. Some remained sitting on the eggs until rather closely approached, others departed long beforehand, obviously more wary by nature. All would walk or fly to some little distance, whereupon they would anxiously strut about the tundra to watch developments. They invariably "honk" noisily while an intruder is in the vicinity, and give vent to their feelings by repeatedly taking to the air in wide circles about the nest.

The young of the Blue Goose are exceedingly active and run with surprising rapidity and endurance when only a day or two old. . . . After leaving the water, young geese preen themselves with meticulous care. This stirs up the wet down, exposes it to wind and sun, and gradually restores the condition of airy fluffiness without which they appear to be unhappy. During the process of preening they frequently rise high on their toes to fan their diminutive wings with exuberant energy and enjoyment. In a surprisingly short time after emerging from the water, in a more or less saturated condition, they achieve that dry and expansive silken condition which so characterizes young of this kind at their best.

In flight, Blue and Lesser Snow Geese do not so consistently adhere to the V-formation as do the Canada Geese. In fact, on the Blue Goose plain such flight formation was rare, being more accidental than habitual. They are more given to bunching and flying in rough lateral lines, as well as in "Indian file" after the fashion of the King Eider. The latter is the more common manner of flight, in which the line may be led by either species, and the rearguard similarly composed, without any suggestion of methodical segregration of the two species intermediately in the file. In short, in relation to each other they fly entirely at random. The actions of the two birds in flight are individual rather than racial. On the other hand, Hutchin's Geese group slightly apart when flying in irregular bunches of the Blue and Lesser Snow Geese.

The most beautiful, as well as the most remarkable spectacles that I have ever seen in bird life, were these great gatherings of Blue and Snow Geese on the marsh-lands of western Baffin Island. In the stillness of a late June night when the sun was sinking in a weird red and golden light over the northern horizon near midnight, their close ranks appeared like huge snowbanks against the background of the browning tundra. The beauty of it all fell upon the eye as does a surpassing poem, or strains of music upon the ear. It was epic, with the heroic flavour of those larger experiences in nature which may strike across one's pathway but once in a lifetime.

While flying, as well as feeding, the Blue and Snow Geese are invariably noisy, their voices mingling with expressions of great variety. A hoarse "honk," or high-pitched "quack" is typical, while a familiar call, which at first was heard with deep interest and curiosity, was an excited yapping or "barking," almost similar to that of a small dog.

On the plains I was always forcibly struck by the evidence of sociability and good fellowship which existed among the Geese. Of never-ending interest was the sight of hundreds of Blue, Snow and Hutchin's Geese and Brant feeding, or holding high carnival on the tundra, as intimately intermingled as though all belonged to a single species. Fighting among them was never seen; they were all good fellows together. Of the two former this was especially the case, as they were seldom or never entirely apart. Many times I have observed a triangle, or bar, of Geese flying steadily overhead, composed of two individuals of *caerulescens* and one of *hyperborea*, or the reverse, "each holding its place in the geometrical figure as though it was composed of entirely homogeneous material"—a sociable union in spirit and purpose.

FLIGHT FORMATIONS OF THE BLUE GOOSE: A sketch showing the rank, the file and the various echelon formations adopted by this fascinating bird

* THE SPHERE dated October 26, 1929, pages 193, 194, and 195, and also in November 30, 1929, page 486.

FRIENDS of MAN

Notable Dogs all Over the World

THE DOG THAT LOVED HIS HOME: Nemo, adopted by the Newark N.J. Airport, was given a home by a farmer twenty-five miles away, whither he was taken by car. He ran the distance back, however, and arrived at the airport at midnight with torn feet and lolling tongue

AN ESAU OF THE CANINE RACE! A heavily-whiskered Kerry Blue—Princeton Super Man, owned by Mrs. Handy, which proved the champion dog in the Kerry Blue Terrier Show, held at the Territorial Hall, Handel Street, recently, for which there were 220 entries

A REGULAR FIRST-NIGHTER: George, a wire-haired terrier, minds his mistress's place in theatre queues whilst she has a little refreshment. George is a well-known frequenter of theatres when first nights are due

Douglas

CHAMPIONS BOTH: Two snow-white puppies bred by Mrs. Risdon of Northwood. These are Pekeclan Pai Chuan (literally "White Dog"), the purest, unblemished snow-white dog in the world; and England's premier white stud dog, owned by Madame Marie Antoinette Schiebe

"THE DOG STAR!"—or "six mites with but a single thought." A litter sired by the world-famous dog, Champion Pugilist. These dogs were so intent on feeding that they were oblivious of the photographer's presence when he obtained this striking picture

PROPAGANDA GONE MAD

Barbusse on Russia, and Other Literary Matters of the Week

By CECIL ROBERTS

Our car mounting the road towards H. G. Wells' retreat near Grasse passed a man whose extraordinary figure at once drew my attention from the arresting panorama that had unfolded itself in the course of the journey. It was then that my French host leaned forward and, in a voice of awe, said, "Do you know who that is? It's Henri Barbusse—we shall meet him at Wells' house." This information was followed by an extraordinary gesticulation and, after shaking his head, he leaned back in the car, murmuring incredulously, "A Bolshevik, yes, would you believe it, a Bolshevik!"

If anything could have whetted my appetite concerning the author of *Under Fire*, to give the English title to a book which has already reached the classic condition of being printed in the *Everyman* series, it would be the fact that this singular man had become a Bolshevik. Here, at last, one would meet a man who had investigated the truth for himself. Barbusse had been living in Russia. He had gone there with an open mind and been converted. What is the truth about Russia? We all ask the question, and it remains unanswered. Most of the authors who go to Russia to give us a portrait of that tormented giant suffer from the very obvious disqualification of not speaking Russian. It is impossible to present any trustworthy account of a country whose language one does not speak, more particularly of a country where ideas and propaganda play such a large part in the re-modelling of society.

And now we have a book on Russia by Henri Barbusse who, despite my French companion's horrified expression, is neither mad nor stupid. But *One Looks at Russia* (Dent. 6s. net.) differs little from other books written by visitors and students of the U.S.S.R. There is a characteristic passage which stands out strongly, in juxtaposition to the candour and sanity of much of the book that invalidates his championship of the new regime. Although an avowed sympathiser with the Soviet regime the story is a confused one, with lapses into that senseless fury that marks the fervour of the propagandist—the serious disqualification that Barbusse does not understand Russian.

"Let those who serve the cause of mankind realize how closely they must watch over the Soviet adventure, so that all the various mercenaries and myrmidons of menaced capitalism, by their dishonest tricks of literary juggling, may not misrepresent it in the minds and hearts of the masses. Let the honest worker, who will be a conqueror as soon as he ceases to be a convict, reject . . ." etc.

As soon as he ceases to be a convict! It is this kind of ridiculous exaggeration, this blind fanaticism which sees everywhere the dishonest tricks of literary juggling, and the conspiracies of the myrmidons of menaced capitalism, that makes the evidence of Barbusse almost valueless. If he cannot see the truth about his own civilization, how can he see the truth about another for which he must rely upon interpreters? There is nothing in this book, there has been nothing in any book about Soviet Russia, that has produced any evidence to prove that the condition of the Russian worker can begin to be compared with the condition of the worker in England, France, or America. It is sheer nonsense to talk of British workmen as convicts; it is insolence, in view of the incontestible evidence of the appalling use of convict labour in the Russian timber camps, attested by witnesses every bit as reliable as the author.

As a work of propaganda, therefore, this book is negligible. The author exposes his own need of critical balance in a significant confession. After reviewing the merits of the Soviet regime, he adds:

"It is only when you have said all this that you are entitled, if you will, to add some shadows to the picture. Only in that case are you telling the truth; for these shadows, historically speaking, do not count, and you are not at fault if you do not show them at all."

It is the personal test that counts in a man's opinions, and one passage in this book displays Barbusse as an unreliable theorist who has allowed an idea to blind him to the truth. If ever there was a foul, corrupt, murderous regime, instituted by one of the most criminal pests that has ever inflicted himself upon poor suffering humanity, it is the wretch who carries the name of Bela Kun. I saw something of tortured Buda-Pest under his red hand. History has rightly branded him as one of the scourges of our civilization. Yet this is what Barbusse can bring himself to write:

"I was among those who, with the whole population of Moscow behind us, recently received Bela Kun at the station after his escape from the clutches of the Hungarian Government. I saluted him in the name of the International Bureau of Proletarian Writers, because during the time when he was in power he went out of his way to give ample scope to the art which is rising out of the depths, and waged war upon the bad bourgeois literature which was fashionable there as elsewhere . . ."

Apart from the absurdity of terming any literature as bourgeois, or that there can ever exist such a body as "proletarian writers," the sheer ignorance and misconception of the state of Bela Kun's regime renders the whole passage ludicrous to anyone conscious of the true facts.

Ignoring the prejudice behind much of Barbusse's comment, there is much that is informative and novel. One day at Monte Carlo I encountered a delightful Russian whose mission was certainly a singular one. He was visiting the French Riviera and taking notes of its organization for the accommodation of tourists. He then surprised me by stating that the Crimea as a holiday resort was very much finer than the Riviera, both in regard to climate and the scenery, which was more varied and magnificent. And with that positive enthusiasm which characterizes the Russian, he assured me that in twenty years the Crimean Riviera would be as fashionable as the French. Fashionable, a strange word in the mouth of a Communist!

This account of the nature of the Crimea surprises me. For some reason, or no reason at all, I had conceived it as a desolate, forbidding region of countless horrors. At the back of my mind was a picture of Florence Nightingale, and frost-bitten English soldiers. A few days later an old lady, once a singer in Grand Opera at St. Petersburg, who now lived in Riga, and had gone through the Russian Revolution, confirmed the Russian's statement upon the Crimean Riviera. It now took her one whole week to reach Monte Carlo for the winter season, and she lamented that she would be dead before the cultivation of a season on the Crimea would save her a trying journey.

This is a book to be read. Barbusse is honestly prejudiced in favour of the regime, whose propagandist forces he has joined. It will do no harm to the established order of society to read this account of a great and ruthless experiment. All its weaknesses lie exposed in the erroneous conception of our civilization that blinds the author to the balanced truth. The Communist is a man looking at life in a rage. That is the note of this book. As propaganda it defeats itself.

Mr. Julian Green has been so extravagantly praised in his past work that I shall perhaps be a voice in the wilderness when I say that his new book, *Christine* (Heinemann. 7s. 6d.), is unworthy of a serious craftsman. The names Flaubert, Zola, and Poe have been bandied about in order to pay him compliments. What does clearly emerge from his books, all of which I have read, is that he is incapable of creating any pleasant character. Since life does not consist exclusively of a set of morbid, cantankerous, neurotic people of suppressed criminal tendencies his art lacks fidelity to truth and proportion. Mr. Green certainly has power, but in *Christine* he abuses his gift.

In the first of this book of four stories he elaborately tells us of a man who embarks on a French tramp-steamer in a voyage from France to America. Throughout, the sole passenger, the man refuses to speak to the captain, who is worked up into a state of anger by his reticence. On the last morning of the voyage the passenger suddenly confesses to a crime, which the captain refuses to believe, and then the man admits he has invented the story. Up to this point the author has succeeded in investing his story with great suspense. The reader now awaits a strong *dénouement*, towards which he has been progressing through the preliminary pages. There is a shout at the sighting of land. The captain calls for his passenger to come out of the cabin. The man is dead.

That is all. The curtain is rung down. The reader is deserted without any attempt to justify the trick that has been played upon him.

As a reader, I object to tricks of this kind. It is weak and unjustifiable craftsmanship that not even the plea of psychological significance will excuse. Angry, I passed on to he next story, *Christine*. Here again the same trick is played on the reader. The third story is even poorer in its motive. There is an unbelievable hotch-potch about some forged letters. A small boy sets out to murder a man who has imposed himself upon his mother's household. A small child draws upon herself the death motive, and dies in bed, vicariously. It is a quite improbable story and the author does not trouble to give the reader any reasonable basis of belief. The fourth story in the book is quite unintelligible.

It is good for an author to experiment, but he should refrain, on the basis of his reputation, from drawing the public into the laboratory where his experiments are only half prepared, or prove unsuccessful. The note of unmitigated gloom prevails throughout these four stories. The first of them only, *Leviathan*, has power. We are told that "the characters in this book have no warped view of life." I failed to find one that could be accounted rational in his thought or behaviour. There is a nightmare quality over all the stories, and like nightmares they have no satisfactory dramatic sequence.

There is tremendous gusto in *Portrait of a Paladin*, by Huidobro (Eyre and Spottiswoode. 7s. 6d.), It is the story of the Cid, written in an ecstatic style. The author has purposely attempted a new literary form. He ignores the chronological order of events and of phraseology. These anachronisms shatter, for me, by their absurdities, the fine frenzy with which the author carries one along on his pæan of praise of the gallant Rodrigo. Sensuous and sensual, with a fine gift of depicting the mediæval splendour of the Spanish Court and the panoply of knightly prowess, a phrase brings the whole canvas toppling down. Thus in the middle of a mediœval picture of Rodrigo, aged fifteen, one is told he had "bones well plenished with lime, and nerves supple and sound as those of a machine. Rodrigo had the power of forty horses, 40 h.p., and they called him Rodrigo Diaz de Vivar."

The author has deliberately set himself no limit to his analogies. He ransacks history and science, the sun, moon, and stars are given human emotions. Into what extravagances a writer can plunge when he throws literary caution to the winds let this passage illustrate. It has the fervour and the folly of the manner of the whole book, at once lyrical and pathetic.

"Look at the Cid in battle. He was more than genius or than talent. He was a man of electricity. Genius may fail of inspiration, talent may fail in calculation, but the electric man does not fail in current . . . the current of irresistible voltage which a man can make pass from one pole of his army to another."

There is power and beauty in *The Other Land*, translated from the Italian of Francesco Perri (Geoffrey Bles. 7s. 6d.). It is a saga of the Calabrian soil, *cavalleria rusticana*, and tells with great poignacy of the chastity of simple peasants, of the adventure of a youth to America and his ecstatic return and wooing. The impressive close of the book has for its theme the ravages of a repellant disease, but the tragedy is powerful enough to transcend this horror. The writing throughout is nervous, and of fine economy. In an age of extravagant acclamation I hope this sincere masterpiece of modern Italian literature will not be overlooked.

Recommended Books:

The Suffragette Movement, *by Sylvia Pankhurst* **(Longmans. 21s. net).**—The full history of the turbulent days of the women's suffrage movement. It makes disturbing reading to think women had to pass through this martyrdom. This is a full, well told record.

Between the River and the Hills, *by Sisley Huddleston* **(Harrap. 12s. 6d. net).**—Mr. Huddleston is never so happy as when he is describing the France he loves. Here is a delightful account of his retreat by the Seine, a charming pastoral of the Norman countryside.

Murder by Persons Unknown, *by H. L. Adam* **(Collins. 12s. 6d. net).**—A collection of unsolved murders for mystery lovers.

A Young Man at Sea, *by Maxwell Laurie* **(Heinemann Ltd. 7s. 6d. net).**—Here is a story within the compass of an Atlantic crossing. The various passengers on board a liner are studied in their brief relationship to Gabriel Hartley. In this microcosm of life he finds his poise and comes into harbour in both senses of the word. A book of quiet, careful charaterization.

The Forester's Wife, *by Margot Adamson* **(Dent. 6s. net).**—For those who like poetry there is rich material in this blank verse story of the Middle Ages. Grim, with fidelity to the barbarism of the period, Miss Adamson rises to noble heights of passion and beauty.

Detective Days, *by F. P. Wensley* **(Cassell. 12s. 6d. net).**—This is the real thing. A book about crime by the late Chief Constable of the C.I.D. Scotland Yard from the inside.

Russia Unveiled, *by Pariarl Istrate* **(George Allen and Unwin. 10s. net).**—This book of horrors of Soviet labour-conditions might well be read in conjunction with Barbusse's panegyric.

Chorus to Adventurers, *by Roger Pocock* **(Bodley Head. 12s. 6d. net).**—A second volume narrating an adventurous life in the Arctic and among deep sea fishers. The author has a gift for living dangerously.

Why the Hand Dies, *by Sir William Beach Thomas* **(Faber and Faber. 1s. net).**—The writer puts his finger on the decay of agriculture, and suggests the remedy.

"SHEARING THE KINDLY FECUND BOSOM OF THE EARTH": A general view of the annual ploughing match held at Drumavoley, Ballycastle, Co. Antrim, by the Ballycastle Ploughing Society, is a matter of great interest to farmers in the vicinity

FRUIT BASKETS IN EMBRYO: Women engaged at Bidford-on-Avon, near Stratford-on-Avon, in stripping osiers—or withies—to make fruit-baskets, one of the great uses to which these pliable willow wands are put

EEL FISHERS OF THE SEVERN: Figures unusual in other areas yet familiar in the New Bridge, Gloucester, district, bearing their curiously shaped eel-baskets woven from osiers

THE WITHY SEASON: Bidford-on-Avon, near to Shakespeare's birthplace, is one of the great centres of osier work, for the Avon is a stream prolific in willows. The willow wands are gathered at this time of the year, and stacked along the banks. Later they will be woven into baskets and used for a variety of causes

PORTENTS of SPRING

On the Countryside

TALKIES

And Their Production

A NEW JACKIE COOGAN? Master Peter Lawford, the seven-year-old son of General Sir Sydney and Lady Lawford, watched by his father, and directed by Mr. Monty Banks

A PRODUCT OF THE LABORATORY: Fraulein Brigetie Helm, who made her name as the mechanical "Robot" woman in "Metropolis," one of the most spectacular silent films ever produced is starred in a new Ufa Talkie entitled "Mandragora" in which she plays with the same consummate skill that rendered her previous performance memorable, an "artificial" woman

TALKIES AS THEY ARE MADE: A remarkable scene of a break during production at Elstree, the British filmopolis. The lights, camera-booth, microphone boom, actors, electricians, and, in fact, the whole production staff, are visible above

THE WOMAN OF FATE: Alraune, the artificial woman in Mandragora, the Ufa talkie, played by Fräulein Brigette Helm, who drives all men who love her to their several and varied deaths, with Herr Albert Bassermann, the scientist, who, despite his knowledge of her nature and her lovers' fate also falls victim to her charms and ends a suicide

Drawn for THE SPHERE by D. MACPHERSON

THE NEW ELSTREE: A striking diagrammatic cross-section of the main centre of the newly-created British film industry. The silent stage is fitted with a water tank and surrounded by an iron wall. The walls of the nine sound stages are of asbestos slabs packed with seaweed

In last week's issue of "The Sphere" an article appeared from a Special Correspondent dealing with the spectacular rise of the British film industry, raising London to the second film-producing City in the world. This industry has its main centre in Elstree in the studios of British International Pictures, Ltd. The advent of the Talkies has rendered it impossible to produce several pictures simultaneously in one studio with the result that, apart from the great silent stage used purely for spectacular production, several sound stages of different sizes have been built. The diagrammatic cross-section on this page is practically self-explanatory, showing the nine sound stages, the huge silent stage used for spectacles in talking films (a feature whose value is enhanced by the water tank), and an outdoor set together with their dimensions and the materials used in the construction of their dividing walls. Overhead in each sound stage is an electric crane. Elstree is fortunate in the possession of its own electricity plant, carpenters' shops, paint shops and plastering studio. It is, therefore, capable of turning out, with its production unit of 600, fifty talkies a year. British International Pictures also has its own selling organization with world-wide connections and ramifications, and is thus not only the most powerful force in British filmdom, but also the greatest asset Britain has in the film markets of the world

THE WONDER CHARM OF "WONDER BAR"

The Intimate Picture of a Cabaret Drama told Nightly at the Savoy Theatre

THE LIVELY PROVINCIAL: Bondy (Mr. Dick Francis) with the poised fork is attracted by Inez (Miss Elsie Randolph). Sam Wonder (Mr. Joseph Greenwald) on right

LIANE (MISS DOROTHY DICKSON) WITH HARRY (MR. CARL BRISSON): The heroine of the story which runs through "Wonder Bar" falls in love with the attractive dancer with whom she runs away, a differing version of "Bitter-Sweet"

MISS GWEN FARRAR singing "Alone in a Crowd" in Wonder Bar. Top right—Mr. Carl Brisson as Harry

The charm of *Wonder Bar* lies in the intimate realistic setting wherein the audience and actors are one. The cocktail bars with their attendants stretch down from the stage to the floor of the stalls, as shown in these special pictures taken by the "Sphere"

"ELIZABETH": A fascinating number in Sam Wonder's programme The trio of singers bring down the house with "Elizabeth." From left to right: Miss Enid Stamp-Taylor, Elsie Randolph, and Betty Frankiss

THE WORLD OF WOMEN

A Complete Weekly Section of "The Sphere," Incorporating a Wide Variety of Feminine Interests

SOLO MEALS

By Elsie H. SHAND

A little bread and cheese, served from odd china on a tray, will not satisfy the fastidious taste of the modern woman when the question of luncheon is under consideration. However simple, the meal must be perfectly cooked, and, more important still, served attractively from dainty china.

It is little wonder that the woman of to-day insists on using perfect china for her meals, because there is such an unlimited supply available—in fact, she is almost spoiled by choice.

This really comprehensive breakfast-in-bed set is right for the woman who lives alone. Complete with tray it costs 47s. 6d. From Lawley of Regent Street

The breakfast-in-bed set, which has been specially designed to please the modern woman, is really comprehensive for, in addition to the teapot, hot-water jug, and the necessary cup, saucer, and plates, there is a cruet, toast-rack, combined marmalade and butter-dish, as well as a covered hot-water plate.

Every piece matches, and it all fits on to a really substantial wooden tray with a strong woven cane edge. One of these fascinating and practical sets is illustrated on this page. It is made of fine china and decorated with a modern conventional design.

The plates in this set are reasonable in size, and so can also be used for a solo luncheon or dinner. This being so the set is inexpensive at 47s. 6d., which price includes the tray. There are many different designs and colourings to be had in these breakfast-in-bed sets, all of which are attractive.

When serving coffee-for-one this set is ideal. Made of cream china one jug is decorated with mauve, and the other with just the right shade of pink which harmonizes. The price is 7s. 6d. From Lawley of Regent Street

The price of this early morning tea-set and tray is 27s. Blue, orange and black are the colourings of this particularly attractive china

The charming coffee jug, with its matching milk jug, on the little china tray, will solve successfully the question of how to serve the after-dinner coffee for one. The set illustrated is subtle in colouring, the china being deep cream, with one jug decorated with mauve and the other with pink. Together the colours are perfect.

For mid-morning or after-the-theatre-bovril nothing could be better than the individual cup, complete with salt and pepper. The set illustrated has a charming cross-stitch design.

There is china which will tone with any colour scheme, as well as china which will harmonize with almost any period of furnishing. For instance, there is the blue willow design for the room which is furnished with antique furniture, and the reproduction Chinese porcelain which will be at home with lacquer.

For the boudoir there is delicate painted china—for the country, cottage pottery with bold colourings and simple designs.

Many individual sets of china are available for the woman who takes her meals alone, from the early morning tea-set to the broth set for the after-theatre bovril.

VALENTINES

By M. Sherriff MOTT

Once upon a time the 14th of February really meant something; it was, in fact, *the* red letter day of the sentimental calendar; and on it the giving and taking of tokens known as valentines was customary to an extent which, apparently, not only completely shattered the emotional calm of the young hearts of England, but also considerably disturbed the orderly routine of the post office.

It seems odd to us, to whom the 14th of February is merely a day which comes between the 13th and the 15th, to learn that 200,000 letters and packets beyond the usual daily average passed through the post on St. Valentine's Day.

Apparently no one has ever been able satisfactorily to explain exactly how it was that Valentine, Roman presbyter and martyr, became the patron saint of lovers. What actually happened was that he, being a wise and good man, heartily disapproved of drawing lots in honour of the goddess, Februata Juno, whom he almost certainly would have considered to be a hussy. For this amusement, customary among the young Roman men of his time, he substituted a lottery in which patron saints were the prizes. This innovation would appear to have been received with a certain lack of enthusiasm, but the good Valentine persevered, and when he was killed (A.D. 270) by order of the Emperor Claudius, the date of this lottery drawing was changed from the 15th to the 14th of February in commemoration of his death. And that is the origin of the custom of drawing lots for "Valentines." In a manuscript day-book in my possession, dated 1868, written by a country gentlewoman who visited London in February of that year, there is an interesting account of the valentines of that time. "I found," she says, "that they can be bought useful as well as ornamental. Thus I sent Mamma a quilted satin sachet, scented with orris root, and containing three of the finest cambric pocket handkerchiefs."

There is no traceable history of the paper valentine much before the last quarter of the eighteenth century, but during the next ninety years or so it achieved universal popularity, being produced in every shape and form, at prices to suit all classes—with sentiments to match.

An example of the earlier paper Valentines (1840). The design is in blue and yellow

A grotesque Valentine of the late nineteenth century

A Valentine of 1860. The Miniature basket filled with artificial flowers and moss

BATHROOMS *in* BOND STREET

The Climax of the Revolution Effected of Late in this Most Important Adjunct to a Well-ordered House

Although we live admittedly in fast-moving times, yet the rapid transformation of the bathroom is nothing less than amazing.

A short while ago it was simply a matter of an ill-lit room, a clumsy wooden casing enclosing an uninviting cast-iron bath and a few inadequate and somewhat rusty fitments. To-day it is a room of beauty, where the practical and the hygienic are successfully combined with the æsthetic.

The world — the civilized world at least—has at last become bathroom conscious, and we can now read of the glories of the baths of ancient Rome—even visit them—without wearing a blush of shame upon our cheeks, a blush for civilization.

Illustrated on this page are the latest conceptions of the bathroom in its most perfect form. They may all be seen, together with many other equally beautiful examples, at the handsome new showrooms just opened in New Bond Street.

The showrooms were built primarily with the object of displaying the bathrooms so that the prospective purchaser may see them in a setting which is entirely in harmony with their design. Running water is laid on and certain of the fitments can be demonstrated in full working order.

A special feature has been made of the lighting, which incorporates all the latest fantasies and creations of modern art. In this connection it is interesting to note that the model rooms are shown by day as well as by artificial light.

Marble is chosen as the principal decorative medium, but it is used with great discrimination and cleverly allied with glass. This combination gives a definite sense of spaciousness, and produces interesting lighting effects as well as considerably reducing the cost of production.

In one model bathroom no less than four different marbles are introduced—Pedrara, Swedish, Vert Antiquo, and Botticino. The resulting colour scheme of soft green, mottled brown and pink is exquisite, and is enhanced by the concealed ceiling lighting.

Particularly interesting in contrast to this bathroom *de luxe* is the miniature bathroom which is fitted in a space beneath the stairs. This demonstration of room economy offers a practical suggestion for those of us who live in a house where space is at a premium.

Even down to the smallest detail originality has been allowed to play a part—taps and soap containers are all individual in their form and in keeping with the room they are destined to ornament, and gold-backed mirrors are sometimes used to give a warm glow to the room.

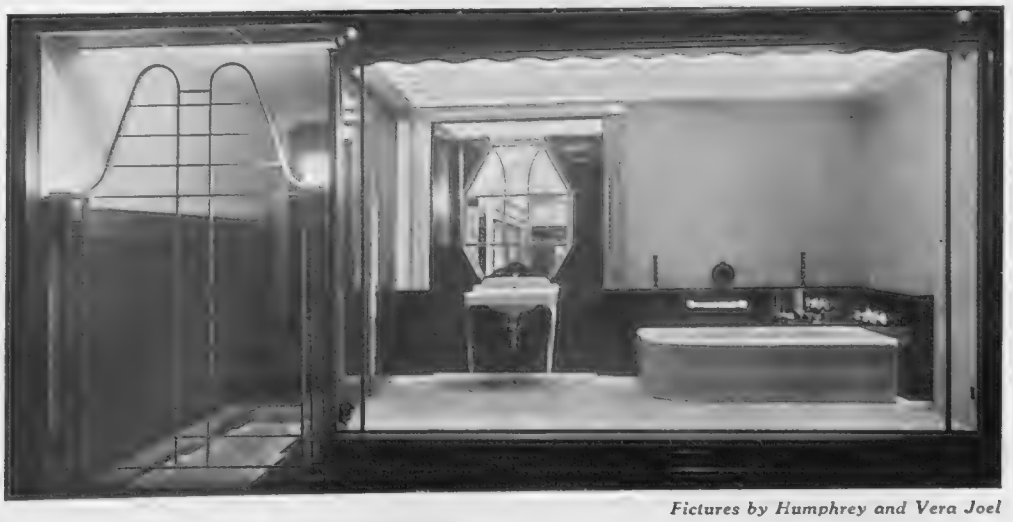
M. D.

...s luxurious marble bathroom with its colour-...eme of rich red-brown and warm beige strikes ... extremely modern note. The mirror is lit ...m either side, thus giving an even reflection

A simple though picturesque bathroom in which the bath, washing-basin, and recessed fittings are in rose du Barri porcelain enamel. Note the clever use of mirror-glass and the niche above the bath containing a lamp

Above—Washing basin and bath are carried out in pale green marble. The revolving glass shower screen and all the chromium-plated fittings are made in the same design

Left—A close-up of a corner of a bathroom, showing chromium plated fittings of original design. The washing basin is in deep-blue china



Pictures by Humphrey and Vera Joel

The entrance to the new showrooms in New Bond Street, where the bathrooms illustrated on this page may be seen. The display window shown above is carried out in Australian black bean relieved by narrow bands of green, lighted by concealed lamps recessed in a series of deep ceiling coffers

BRITANNIA *rules the (Aerial)* WAVES

Latest Developments in the World of Wireless

By GARRY ALLIGHAN

Few of the millions of listeners who tune-in nightly to B.B.C. programmes pause to consider for one moment the extensive operations which have preceded, or are accompanying, the process of broadcasting. I tremble to mention the term "wave-lengths" for fear of frightening readers into the erroneous idea that this is a technical article, but so long as broadcasting is a science involving disturbances on the ether the invisible waves must be brought into the subject.

Put broadly and briefly this is the intricate situation that the B.B.C. manipulates every time a programme is broadcast. There are more than 300 broadcasting stations in Europe of varying and well-defined wave-lengths. Of these, seventy-eight are under 100 metres, twenty-one between 100 and 200 metres, eighty-eight between 200 and 300 metres, thirty-eight between 300 and 400 metres, thirty-two between 400 and 500 metres, thirteen between 500 and 600 metres, one between 600 and 700 metres, four between 700 and 800 metres, three between 800 and 900 metres, one between 900 and 1,000 metres, twenty-one over 1,000 metres.

In theory the longer waves are the best for broadcasting. Daventry 5XX has a wave-length in the region of 1,500 metres, and is able, because of the pastoral condition of the surrounding country, to give perfect transmission over from 200 to 300 miles, whereas London National, with 261·3 metres, gives a service of from thirty to forty miles. Factors such as these have to be carefully considered by the Savoy Hill authorities when plotting programmes.

This question of wave-length is one that concerns the technical staff; there is another that is of great importance to broadcasting, and in which the studio engineers are mainly involved. I refer to that matter of the air—the microphone. This delicate instrument records, more or less faithfully, the sounds that occur within its range of hearing. These sounds have to be reproduced with an energy amplification of hundreds of billions.

When a programme is broadcast the B.B.C. staff have to concern themselves with three factors: the sounds that the microphone automatically reproduces, the sounds that have to be eliminated, and the sounds that have to be super-imposed. The draping of the studio and the placement of the microphone were two of the steps taken towards securing perfect transmission until comparatively recently. The former was for the purpose of eliminating echo. It speaks well for the development of broadcasting that the B.B.C. now take steps to ensure echo.

There is a special "echo room" at Savoy Hill, and each of the studios now being built into the new Broadcasting House—the B.B.C. headquarters at Langham Place, now in course of erection—will have its own "echo room" adjoining for the purpose of super-imposing an artificial "echo" to the music being played. This is the result of applied common sense. It was decided, and with perfect wisdom, by the B.B.C. authorities, "if the acoustic conditions of a room are such as to give real satisfaction when one listens to music directly, without the intervention of broadcasting, then such a room is suitable with little or no further modification for use as a broadcasting studio."

From that deduction sprang the Queen's Hall concerts. The early broadcasting authorities—those of the draped studio school—would have declared that it was impossible to broadcast direct from the Queen's Hall because of the degree of echo. The excellence of the B.B.C. Symphony concerts disproves that weekly. Echo is essential. It lends resonance and depth to the tones. For that reason, more than for any other, the B.B.C. recently took over a huge cavernous warehouse and transformed it into the No. 10 studio. Every orchestral concert from there is a joy, because of the resonance that the natural echo-quality of the building affords.

This question of studio acoustics brings me to the subject of microphone balance, the absence of which reveals itself in what the listener, not blasphemously but correctly, terms "blasting." The instrument most difficult to bring into true balance is the piano, which often throws out the microphone balance of a whole orchestra. The difficulty of achieving really satisfactory transmission of these pianoforte illustrations is dealt with in the current issue of the B.B.C. Year Book ("Piano Balance," p. 282), where a writer points out that, while it is desirable to have the microphone close to the speaker, it should be eight or ten feet away from the piano for satisfactory reproduction of the musical illustrations. If the microphone is too close to the piano, "blasting" is liable to occur, while placing it too far away from the lecturer has the effect of making the speech sound distant.

Next in graded difficulty is the soprano voice. The third most difficult element to broadcast is the clarinet, which can go to top notes which are absolutely unreproducible. In this it is inferior to the piccolo which, although it can go up to the middle of the third octave above middle "C" on the piano, has a reproducing quality made easier by fewer harmonies than has the clarinet.

I am trying to hint at the great and numerous difficulties that have to be encountered and overcome by the studio engineers at the B.B.C. in order to give readers some idea of the magnificent achievements that those engineers accomplish every time a programme is broadcast. For instance, Mendelssohn's "Spring Song" is a very popular piece of light and airy music with the public. But as it involves pianoforte notes of 1,700 cycles (which means a great amount of vibratory over-tones—unpleasant to the microphone and therefore to the listener) the studio engineers have a very strenuous time in securing true microphone balance whenever it is broadcast.

When that same number, or any other musical composition is played by a band or orchestra the challenge to the engineers is accentuated. The vibrations caused by notes on a trombone are so totally different from those on a xylophone—a brass instrument, a wood instrument, a stringed instrument, and an instrument of percussion, each have different and distinct effects on the microphone. The task is to reconcile them in some ensemble blend. The new big B.B.C. orchestra, with its more than a hundred players, constitutes almost the utmost in microphonic difficulties, and yet every time that Dr. Adrian Boult puts that orchestra on, the air listeners receive on their modern sets perfect renditions. The same can be said of Jack Payne's excellent band; Mr. Payne conducts a combination whose differing instruments range the complete territory of sounds, and which have to be picked up by the microphone with varying degrees of intensity, so that when they are transmitted to the 4,000,000 receiving sets in the homes of Britain, the rhythmic melody is the perfect dance music Jack Payne always broadcasts.

In this article I have been indicating the amazing skill with which the B.B.C. authorities perfect their broadcast programmes. That skill would be wasted unless, at the other end of the air, listeners had receiving sets that were capable of reproducing the programmes with clarity and tonal quality. It has always been my declaration that the manufacturers of British radio sets—and no one, of course, gives any consideration to other makes—are either marching shoulder to shoulder with, or one step ahead of, the B.B.C. The situation has been that whatever improvements the B.B.C. may make, the radio manufacturers are always ready to pass them on to the public. That is demonstrated by the excellence of the modern British radio set—its simplicity of control and high selectivity enable the listener to enjoy to the full all the B.B.C. achievements in microphone balance and general studio technique. That is why persons without a modern set are robbing themselves.

When

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THREE STAR
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Introductions by Abdulla

ON THE RINK

Poor floundering Peter is fated to follow
An exquisite magnet o'er acres of ice,
Miss Eglantine Mew, skimming light as a swallow
Revolves like a top and darts off in a trice;
When Peter stares spellbound, his ankles turn over—
He flops at the feet of the Girl he adores!
She coldly ignores so unbalanced a lover
Whose favourite stunt is to skate on all fours.

One morning he brings out a Box of Abdulla
And the beautiful Champion glides airily past,
His face turns a hectic magenta in colour
While he sways in a pose too unsteady to last.
Ah, why is she looking so friendly and pleasant?
A wobble—a crash—he is clutching her waist—
But she murmurs "How sweet! What a marvellous Present!"
As they spin round the Rink clinging closely embraced.

F. R. HOLMES.

ABDULLA VIRGINIA SUPERB TURKISH CIGARETTES EGYPTIAN

THE PETROL WORLD.

The BEAUTY of BODYWORK

Special Coachbuilding Section of "The Sphere"

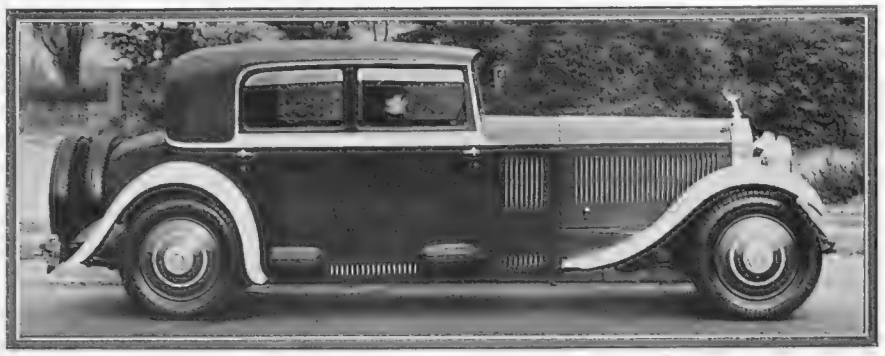
By A. PERCY BRADLEY

(Clerk of the Course, Brooklands; Special Motoring Correspondent to "The Sphere")

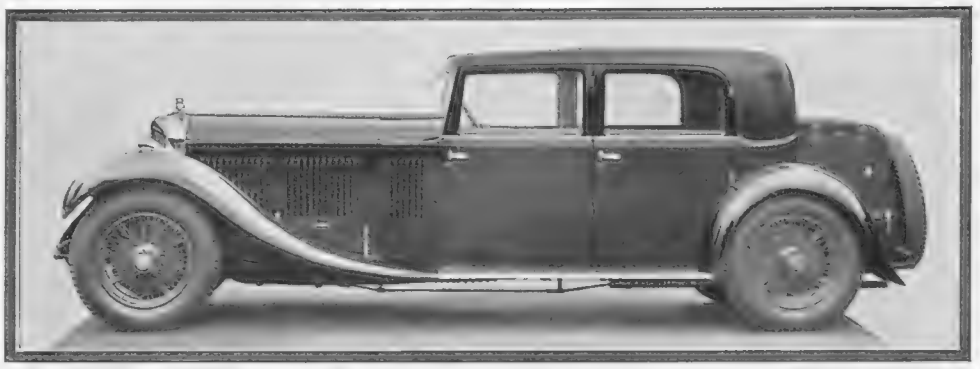
THE MODERN BODY.—The chassis of the modern motor-car has become so reliable that the manufacturers are now able to devote a far greater proportion of their attention to the bodywork. This part of a motor-car has never had the same consideration as the mechanical portion. In the very early days motor-car makers had their work cut out to persuade the car to keep moving, and naturally the comfort of the occupants was of secondary consideration. Fortunately for the makers the owners did not object to sitting on what was nothing more or less than a glorified soap box, because motoring pioneers were nothing if not sportsmen, and the hardships which they endured from being exposed to the elements and from the lack of upholstery was all part of the game. I suppose their discomfort when sitting in the car was nothing compared with that arising from their frequent dives under the car in order to see what was the matter.

All that has been changed with the advent of the reliable chassis. Nowadays a large number of people choose their car solely on account of the comfort it gives and the fittings there are included. In addition to the comfort side, people are becoming quite interested in the appearance of a car, and there is no doubt that during the past few years the lines of standard coachwork on British cars have been made quite presentable. Coachbuilders have been egged on to improve the appearance of their products, not only by the public in the ordinary course of business, but also by certain manufacturers and agents competing in the various Rallies which have been held in this and other countries.

A few years ago a definite attempt was made to tidy up the front of a car and put it on the same level of excellence that the body proper had already attained. For instance, there are few cars to-day that are not finished with a front-apron which closes in the front dumb-irons and all that untidy part of a chassis lying between them. In this year of grace coachbuilders have got round to the other extremity and are now endeavouring to cope with the situation at the back of a car. We are all well acquainted with the untidy appearance that this part generally possesses with its petrol tank filler, its luggage carrier, and its number-plate and tail-lamp stuck on as after-thoughts. Some of our 1931 saloons have nicely rounded-off tails with the luggage compartment, the tank-filler, the number-plate, and the tail lamp all built in with the body as one unit.



ROLLS-ROYCE — A Barker Sports Saloon on a 40/50 h.p. Rolls-Royce chassis. Cellulosed in red with cream mouldings and wings. Triplex glass is fitted throughout — BARKER



BENTLEY — A Bentley 8-litre long chassis fitted with a Park Ward 4-door Sports Saloon body with adjustable front seats and a very roomy luggage container at the rear — PARK WARD

THE EXCELLENCE OF STANDARD COACHWORK.—Serious attempts have also been made to brighten up our cars, as at one time we were in danger of not being able to buy a car unless it was black, dark grey, or blue in colour. Here we have undoubtedly followed Continental practice. It first came to us by including a coloured line round the body with wire wheels painted a similar hue. Now the development is more pronounced and we are able to buy cars that are really gay in appearance.

In the early days of motoring all the bodies on cars were constructed by firms of coachbuilders, the chassis manufacturer being content to concentrate on his own particular portion of the completed vehicle. Gradually the chassis manufacturer has gone more and more into the coachbuilding trade himself, with the result that the great majority of British chassis makers now have their own body-building departments. At first their creations were distinctly crude, but for the past few years they have been producing really good coachwork at extremely low prices. At the same time many of the old-established coachbuilders have not sat idly looking on, but have marched with the times and are as prosperous to-day as they were before motor-cars were invented. Many of these firms are backed up with experience gained during more than a hundred years of trading, and as a result their products are difficult to beat. As a general rule they are slightly more expensive than the standard product of the car manufacturer, but judged on the basis of value for money they are second to none.

(Continued on following page)

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the Riley "9" achieved the following successes—

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SIX COUNTRIES IN FIVE DAYS

AUSTRALIAN TRANS-CONTINENTAL RECORD

MALAYA TO LONDON (Engine never touched)

PREMIER CLASS AWARD BROOKLANDS DOUBLE-TWELVE

SLOVENSKY MOTOR CLUB INTERNATIONAL TRIAL

NINE INTERNATIONAL (sealed bonnet) RECORDS including 48 HOURS AT MONTLHERY

In a word—
SUPREME RELIABILITY

THE "PLUS" MONACO SALOON £298

THE PETROL WORLD (continued from preceding page).

The BEAUTY of BODYWORK

Special Coachbuilding Section of "The Sphere"

By A. PERCY BRADLEY

Some of the firms manufacturing a more expensive type of chassis do not make their own bodies at all, with the result that one or other of the prominent firms of coachbuilders are called in by the customer to complete his motor-car.

WEYMANN BODIES.—Coachwork can be for all intents and purposes divided into three classes. The coachbuilt, the Weymann type, and the pressed-steel body. It is unnecessary to say much about the first because it was the original and in spite of the newer ideas introduced into body-building it is still very popular. The Weymann type body has not been with us for a great number of years but it has forced its way to popularity through its excellent qualities. So great indeed has been its success that it has been imitated in every country, so that purchasers should assure themselves when buying a body of this description that they are obtaining the genuine article. The firm bearing the name manufacture themselves, but they also grant licences to a large number of approved coachbuilders, to turn out products under their patents. The latter are of course, genuine, but this fact can always be confirmed by a plate bearing the Weymann trade-mark placed in some inconspicuous position. The original Weymann though deathly silent was an ugly thing to look at, but in these days the lines are quite pleasing, in fact, there is no curve which cannot be built on the Weymann principle.

ROLLS-ROYCE — A sports Cabriolet de Ville body, by Thrupp & Maberly, fitted to a 40-50 h.p. Rolls-Royce long chassis. The body is fitted with hinged quarter lights, concealed ventilators and windscreen wipers — THRUPP & MABERLY

ROLLS-ROYCE — A dummy spare wheel containing tools is one of Messrs. Hooper's innovations on this body which is mounted on a Rolls-Royce chassis — HOOPER

Advance has been so rapid with this type of body that there is no longer the necessity to cover it with fabric, for metal panels are now extensively used with this type of construction. Let me warn motorists to remember that because the body on a car is covered in fabric, that fact alone does not declare it to be a Weymann.

A NEW TYPE.—I now come to the pressed-steel body which is quite the latest development in this country, though in America it has enjoyed a great popularity for many years. The Pressed Steel Company have a colossal plant at Oxford, and I cannot remember anything more interesting than watching, as I did on one occasion, the complete side of a body being stamped out in one piece by a huge press. These presses are so gigantic that if I endeavoured to give any idea of their size I should probably not convince my readers. They are machines which must be seen in order to be appreciated. The steel motor-car body has much to recommend it. First of all it can be made in numbers very cheaply, the labour costs being cut down to a minimum. It is practically everlasting and it is scarcely necessary for me to emphasize its great strength. At first discerning motorists were apt to sniff at its tin-like qualities, but the modern example of a steel body has been so improved that no one can fairly criticize it in these days on that score. Heat or cold do not affect it, neither does moisture, and so it is a body which can be used with the utmost satisfaction in any climate. If the doors are made to fit in this country they will still open and close nicely in the tropics, whereas before its advent it was very difficult to ensure that the British-built body would not creak and warp in hot moist countries.

THE SALOON'S CHANGING SHAPE.—There is a decided tendency to reduce the height of the body from the ground. The chassis manufacturer has assisted by bringing his frame lower so that the available head-room has not been lessened. This development naturally makes for greater stability, and therefore greater safety, and by lessening the wind resistance permits a greater proportion of the engine power to be available for acceleration and speed.

Safety-glass is now almost universally fitted and car-makers, by now placing the petrol tank at the rear, have contributed towards making the saloon as safe as the open tourer. The inside of the modern motor-car body is wonderfully comfortable: in fact, many arm-chairs in our homes are far more fatiguing than the seats in a car. A real study has been made of what I might call the science of sitting, with the result that the correct width of seat has been determined and the angle of the back has been correctly fixed.

In some bodies the design is so ingenious that four people are able to be accommodated comfortably in the space which a few years ago would only suffice for two adults. We see, therefore, quite small chassis now fitted with four-seater bodies.

By modern methods the weight of a saloon is actually less than that of its open counterpart of ten years ago.

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10 for 8D
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WITH OR WITHOUT CORK TIPS

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3-P-3

BY APPOINTMENT TO HIS MAJESTY THE KING

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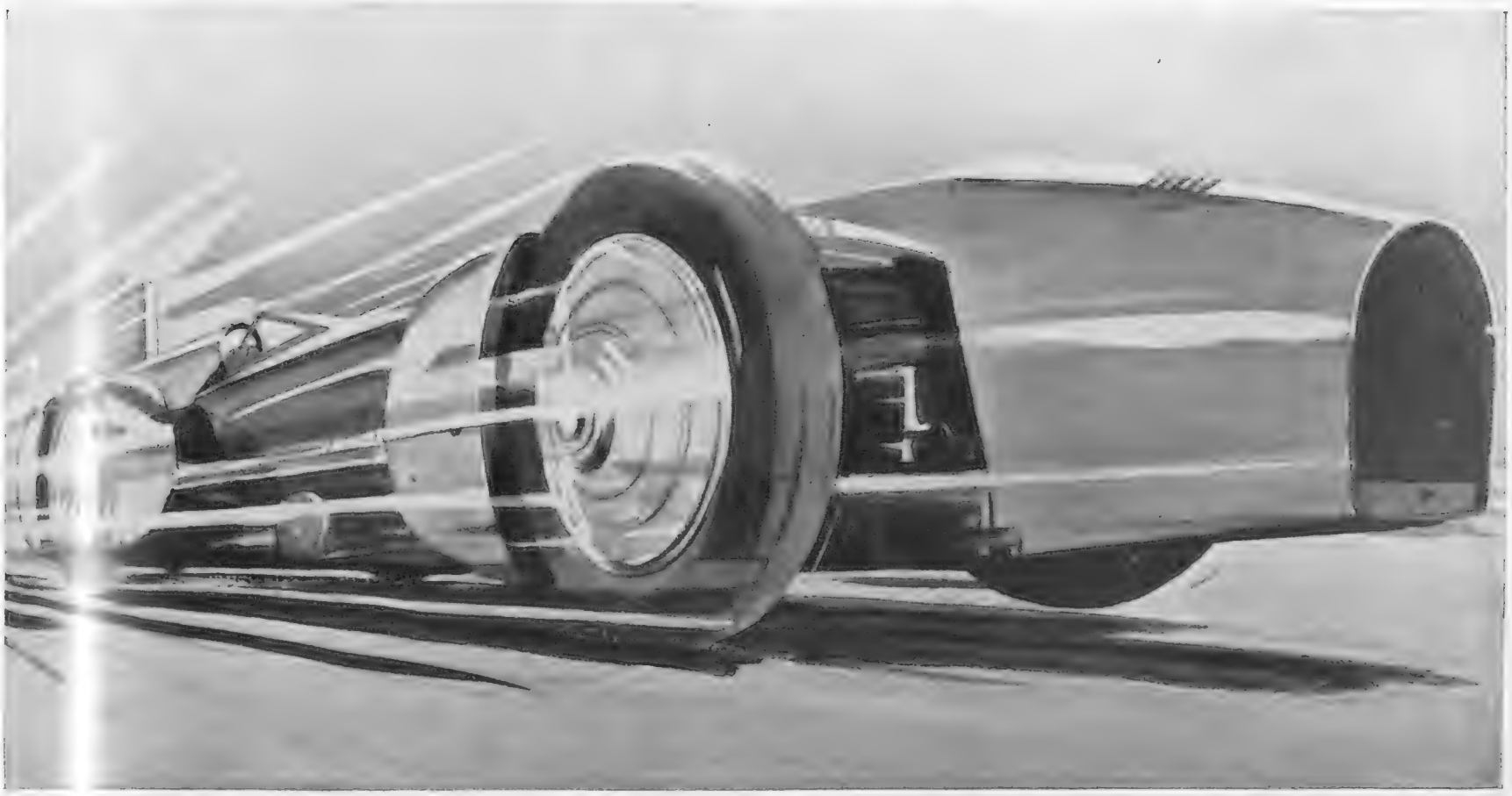

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Sanatogen will refresh, and revitalise your whole system in a few weeks, because it contains exactly the right proportion of those elements—phosphorus and albumin—that build up new health in your nerves, muscles and blood.

Give this famous nerve-strengthening food a trial. A 2/3 tin of Sanatogen now is an investment in Good Health.

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The True Tonic-Food

Obtainable at all Chemists

Ask for the new Family size packing at 19/9, containing 2½ times the contents of a 10/9 tin.

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The PETROL World—(cont.)

By A. PERCY BRADLEY

THE "ALVIS" 12–50

THE NEW 12–50 ALVIS.—A week-end or two ago the Alvis Car and Engineering Co., Ltd., sent me a very handsome and imposing-looking four-door saloon to test. For the past few years I have carried out similar trials on Silver Eagle six-cylinder Alvis cars, and so I looked forward with much interest to gaining first-hand experience with the latest production. The car was painted a very striking red with a good amount of area painted in black. The inside was carried out in the former colour, in fact the whole car, both inside and outside, was attractive. Whilst the car was in my possession I ran it about Brooklands quite a lot, and carried about ten different passengers. They all concurred with me that the lines and the performance of the car were quite out of the ordinary, and finally on the Monday morning I drove it up to London in order to return it to the owners.

I arrived before the representative of the Alvis Company put in an appearance, and as I had a train to catch I was unable to wait. Before saying adieu to the car I looked round for a catalogue so that I might obtain the necessary particulars before writing these remarks. I was full of wrath because every piece of literature that I took hold of referred to the new "12–50," and every illustration of the chassis showed a four-cylinder engine. I began to think that here was another example of the poor organization of the average British motor manufacturer, then it suddenly occurred to me to lift up the bonnet. Anyone could have knocked me down with a straw when I found, not a Silver Eagle six-cylinder engine, but one of the familiar four-cylinder power units on which the reputation of the Alvis concern was built up. I often mistake a six-cylinder car for a four, but never in my recollection have I been misled in the opposite direction. I do not think that the Alvis Company are ever likely to obtain a more genuine testimonial to the performance of their 12–50 car than this episode.

SEVENTY M.P.H., 30 M.P.G.—This new Alvis is a full-blown motor-car. Every seat in it is comfortable and the whole turn-out is smart and attractive. After what I have said it is almost unnecessary to remark that the engine is smooth throughout its entire range of revolutions. Although it possesses bags of power it can behave like a lamb when desired. Even on cold mornings it gets into its stride without any warming up and it starts without any fuss.

The clutch and gear-box call for no criticism and, although the car will do almost anything required of it whilst on a main road on top gear, its performance on the lower ratios is so good that the driver frequently changes down when there is no necessity. On top gear the speedometer went past the 70 m.p.h., and even then I am certain that the needle would have gone higher had the circumstances been favourable. Third gear is particularly useful because the car will travel along at over 50 m.p.h. when it is engaged.

My most critical eye is always reserved for the brakes, but on this Alvis I can truthfully say they were good. The natural result was that the power of the engine could be used, and so high averages were recorded. The suspension and the road-holding qualities of the car were such that the occupants were always perfectly comfortable and yet the driver never felt anxious that the car would not sit on the road no matter how fast he went.

The petrol tank is situated at the back and, although I am unable to state definitely the actual consumption, I do know it was over 30 m.p.g.

FAR ABOVE THE AVERAGE.—After my experience I am more than ever convinced that the makers have done right in reintroducing a 4-cylinder car. There is no one who has ever made a better chassis of this type, and as it sells with an open four-seater or two-seater body at £395 it places a really refined motor-car before the public at a price which gives astounding value for money.

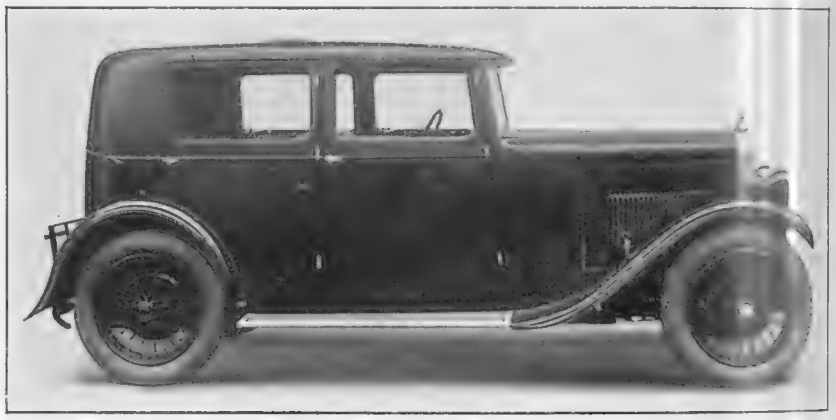
The Alvis 6-cylinder cars are good and well above the average, but it has always been my opinion, which incidentally is now confirmed, that their 4-cylinder car occupies even a higher position in its particular class.

It is not often that I find myself misled by a car, so I take my hat off to the makers of this Alvis for taking me completely in with this 12–50. Had it not been that I happened to lift the bonnet which would certainly have not occurred if a catalogue of the Silver Eagle had been found in one of the pockets, I might easily have applied the remarks I am making in this article to the 6-cylinder chassis.

BRIEF SPECIFICATION of the ALVIS TWELVE-FIFTY.

Engine—4 Cylinders.
Bore and Stroke—69 mm. and 110 mm.
Capacity—1,645 c.c.
Annual Tax—£12.
Clutch—Single Plate.
Gear-box—Four Forward Speeds and Reverse. Right hand change.
Brakes—Internal Expanding on all Four Wheels.
Suspension—Semi-elliptic front and rear. Shock absorbers to both axles.
Electrical Equipment—12 volt.
Petrol Tank—At rear. Capacity 10-gallons.
Price of Saloon—£450.

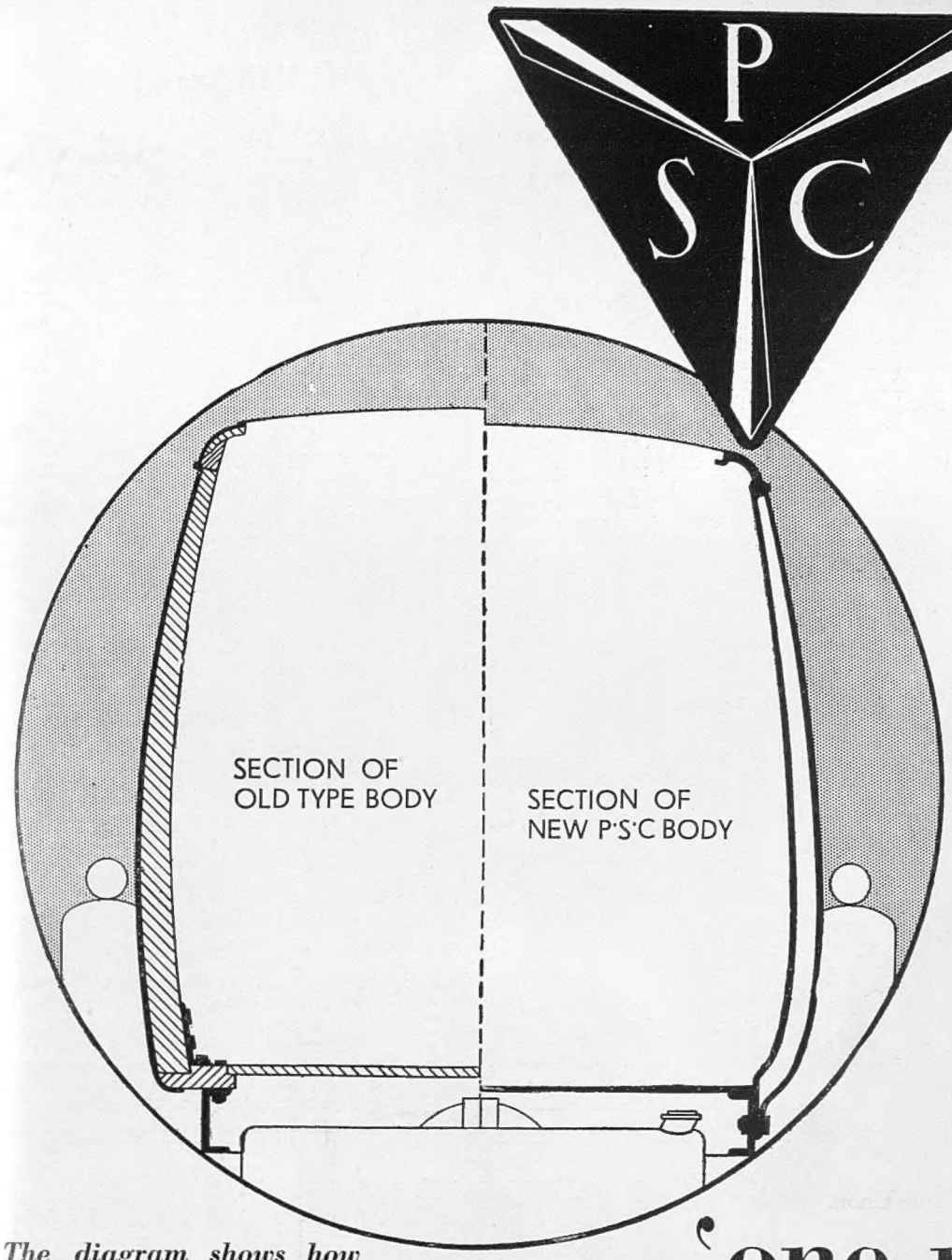
Manufacturers:
THE ALVIS CAR & ENGINEERING CO., LTD., COVENTRY.



THE CAR IN QUESTION: The new four-cylinder 12–50 Alvis saloon. The high-water mark in the four-cylinder £400 category whose performance easily transcends the limitations of any class

THE SHAFTESBURY HOMES AND "ARETHUSA" TRAINING SHIP

A letter has recently been received by this Society from the Admiralty stating the gratifying news that the first and second prizes to Advance Class boys entered in the Royal Navy from the training ships *Arethusa* and *Exmouth* in 1930 have both been awarded to *Arethusa* boys. This is the eighth time in succession an *Arethusa* boy has won the first prize. Those interested in this work and who would like to support it should write to the Secretary, 164, Shaftesbury Avenue, London, W.C.2.



The diagram shows how the new P·S·C pressed steel body (a) gets rid of the wooden sill by which the old type of body is perched on the chassis (b) makes body and chassis one integral unit (c) increases the capacity of the body by eliminating bulky wooden members (d) lowers the centre of gravity of the body without loss of head-room.

MORRIS | AUSTIN
WOLSELEY | HILLMAN
ROVER | M.G.
are using P·S·C Pressed Steel.

P·S·C Pressed Steel makes possible the 'one piece' car

Body and chassis should be one unit, not two. P·S·C makes it possible to *design* them as one and to *build* them as one. It gets rid of the wood sill that perches on the chassis and overhangs it. The all-steel body does not perch and does not overhang. It is secured to the chassis direct and, in this way, ensures lower lines without loss of head-room and with lowered centre of gravity. It is rigid and resistant; silent and safe; lighter but stronger because the unity of body and chassis—each strong as steel—adds still greater strength to both.

THE PRESSED STEEL COMPANY OXFORD

Service Advertising 9.W.

IN THE VOLSCIAN HILLS: A street scene in Cori—the selling of Ricotta—a native cream cheese

AN ITALIAN PILGRIMAGE

A Festival of Trinity Sunday

In one of the fastnesses of the Abruzzi Mountains in Central Italy, only about fifty miles from Rome, but remote to a degree little known in England, for there is no town, no road, no real path, is a cave called the Santuario della Santissima Trinita. Every year on Trinity Sunday and a day or two preceding it may be seen a concourse of pilgrims wending their way to this distant spot.

I was able to go there a few years ago on the Saturday before Trinity Sunday, and the walk, the scenery, the atmosphere of real devout religion made an unforgetable impression on my mind. My friend and I left Rome by the early train for Subiaco and, after a brief rest there and being provided with a guide by the *carabinieri*, we set off about one o'clock accompanied by a donkey carrying our coats, waterproofs, and a basket of food, for we knew we should see no houses on the way; the sun was blazing, and it was a strenuous walk, utterly shadeless, and rising continuously up the rocky slopes of the mountains for over 2,000 ft. At sunset we were on a high tableland with a magnificent view. Descending from this spot we passed through a dense forest almost Wagnerian in its eerie solitude, for it was soon after this that we discovered that our guide had lost his way! However, he lit a naphtha torch and while we and the donkey rested he went off exploring and presently returned to say he had found the track, and we then came across many pilgrims both going to and coming from the sanctuary.

The usual plan is to make up what is called a "Compagnia," perhaps twenty or thirty persons in each, and walk in procession, every now and then chanting a solemn litany in honour of the Holy Trinity. Our way then led uphill once more, and the slopes of the mountain were lit up with the huge fires of the pilgrims; each man carried an axe and cut down as much wood as he thought necessary, and the scene was picturesque beyond words—the peasants lying or sitting round these flaming fires, laughing and talking and sometimes breaking into their favourite chant. They all brought their food, for there is no house within many miles, Vallepietra, the nearest village, being distant at least three hours' walk.

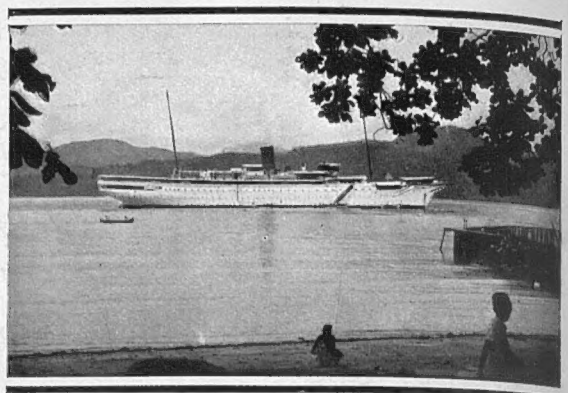
The Sanctuary consists of two adjoining caves or grottos in an overhanging cliff of the rocky Monte Autore (69 ft.); the origin of the pilgrimage seems to be lost in mystery, but tradition has it that a peasant was ploughing when one of his oxen put his feet through the ground, and when the man discovered the cave under the field a vision appeared to him of the Holy Trinity—the curious point being that though the Three Persons were manifest, each one appeared as the Second Person of the Trinity. The canons of the Cathedral of Anagni, to whom the cave belongs, believe it to have been the abode of a hermit in the days of St. Benedict, who founded the celebrated convents in Subiaco in the year 530, and we know that previous to his monastic order each life of asceticism was complete in itself, and to approach Heaven each would-be monk felt it necessary to abandon humanity and to lead the life of a recluse.

About seven o'clock on the morning of Trinity Sunday a procession came from the village of Vallepietra, consisting of priests accompanied by penitents and by ten girls (*zitelle*) chanting a litany of the Passion, and carrying a terra-cotta figure of the dead Christ, and as they approached the space in front of the cave, a poor man threw himself on the ground and literally licked the dust; we could not find out whether this was an act of penitence or the fulfilment of a vow, but the essence of true religion was certainly present among the pilgrims; there were more men than women to be seen, and practically all were peasants.

H. C. S.

"THE SPHERE" TRAVEL BUREAU

Readers are reminded that "The Sphere" Travel Bureau is always at their disposal to help them to choose a suitable holiday for any time of the year. This bureau will readily provide details of fares, routes, hotels, resorts, etc., by return of post. Each request has personal care and attention, and the advice given is entirely unbiased. All requests are answered free; 3d. in stamps is required to cover postage of booklets, etc. Address your inquiry to: "THE SPHERE" Travel Bureau, Inveresk House, Strand, London, WC.2



THE SHIP TO FAIRYLAND: The motor yacht, Stella Polaris, *which is making two pleasure cruises this spring in southern seas*

"STELLA POLARIS"

The 6,000 ton B. and N. Motor Yacht *Stella Polaris* is one of the most comfortable pleasure vessels afloat. Driven by Diesel engines, the ship offers unusual advantages to passengers, including up-to-date heating and lighting; comfortable freedom from congestion (only 199 passengers are taken and all dine at one sitting); a sun deck; a ship's orchestra; luxurious accommodation for passengers and kit; a plenitude of bathrooms; suites of varied sizes; and the perfection of cuisine and service. In addition, there is on board an electric laundry, a barber's shop, and long-range wireless. Her cruises this year run to the Mediterranean and the Ægean.

During the first of these cruises, Madeira and the Canary Islands are visited, in addition to the beauty spots of the Western Mediterranean; while the second cruise carries the traveller as far afield as the Côte d'Azur, Sicily, Italy, Palestine, Egypt, Greece, Malta, Algeria, Spain and Gibraltar—a sea tour embracing the whole of the wonderful Mediterranean littoral, with ample time ashore for sight-seeing during the height of the season in these interesting lands. In Haifa, Jerusalem, Port Said, Cairo and Algiers there is the life and colour of the East—white Arab houses, cobbled streets, gay bazaars, decorated mosques, veiled women, swarthy men, and the inevitable red *tarboosh*. In Athens there is the glamour of a wondrous past. In Sicily and the islands of the Grecian Archipelago, there are the sleepy villages, the olive and lemon groves and the limpid blue of the sea. Along the Côte d'Azur are the cosmopolitan resorts, like Monte Carlo, Nice and Mentone, with their casinos, promenades and hotels, Naples, Malta, Malaga and Gibraltar.

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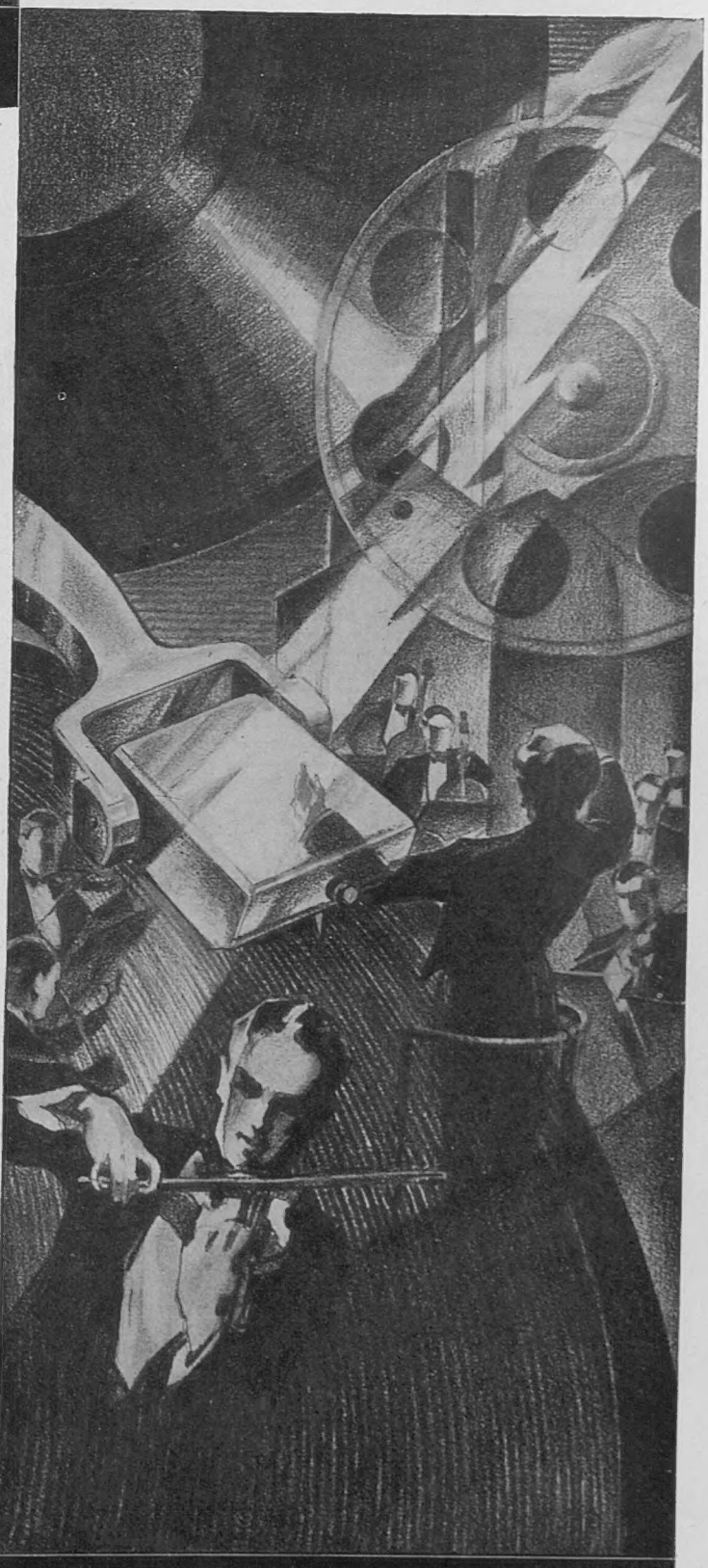

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